

MANUFACTURERS' RECORD

A WEEKLY REVIEW OF THE IRON, STEEL, METAL & HARDWARE TRADES.

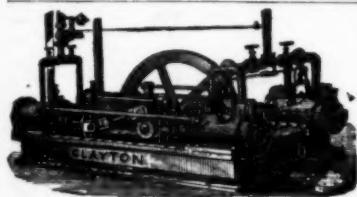
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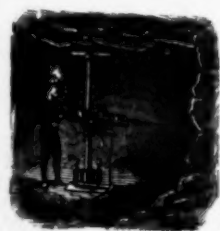
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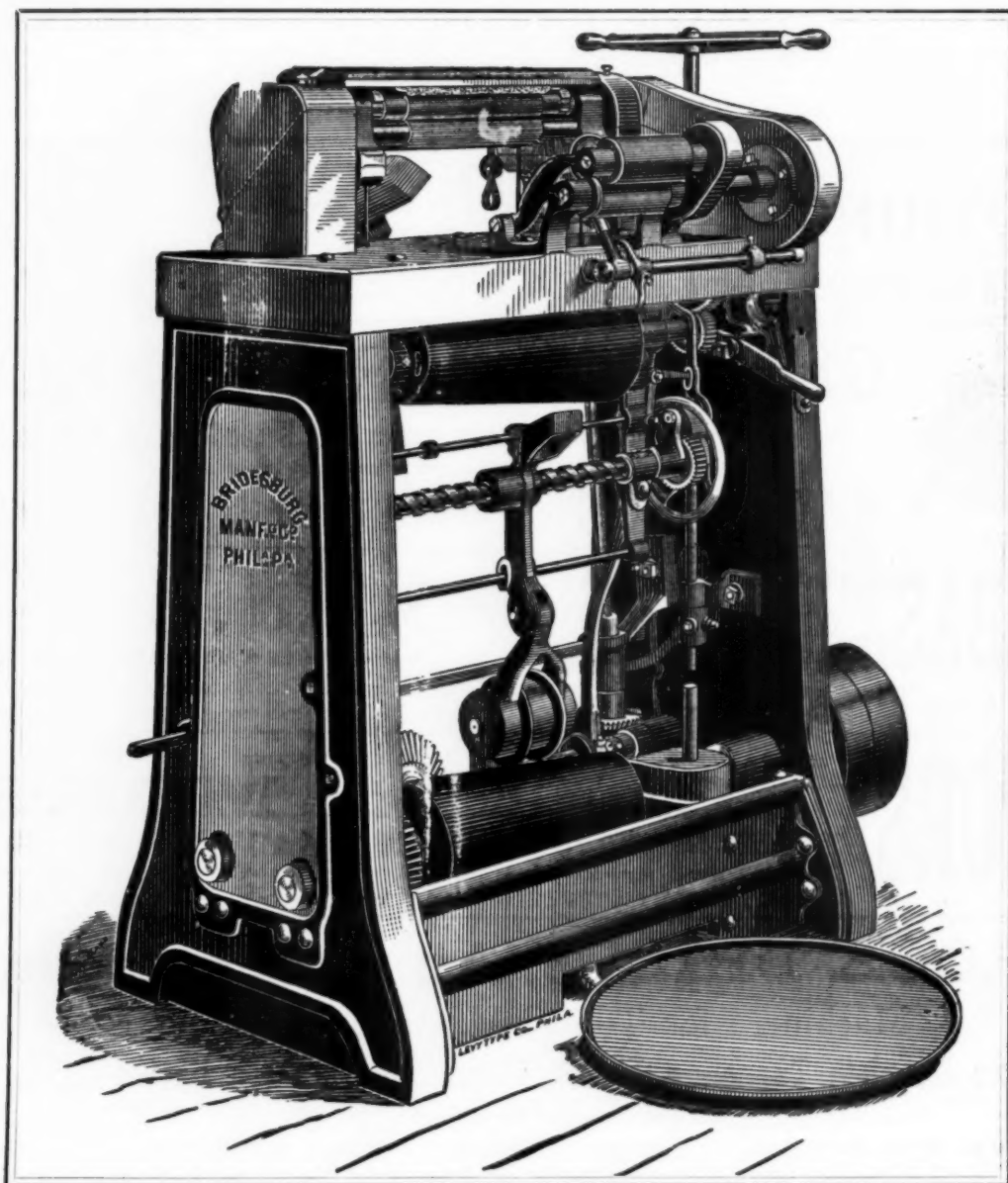
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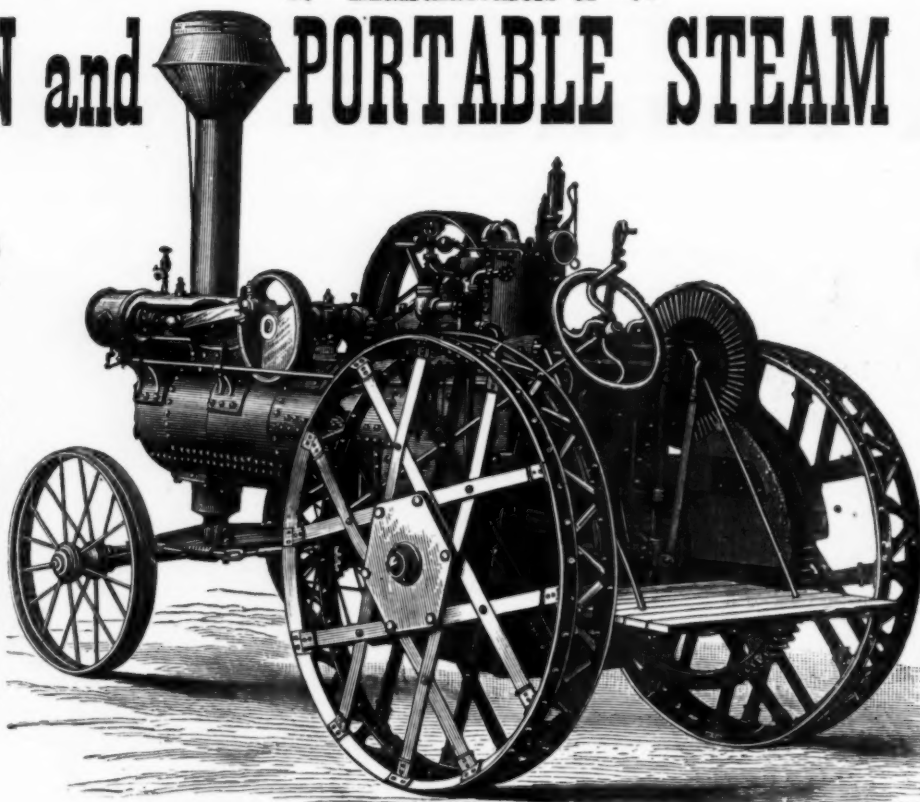
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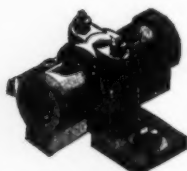
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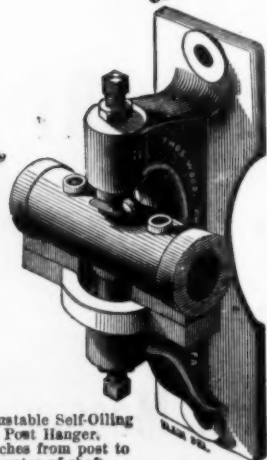
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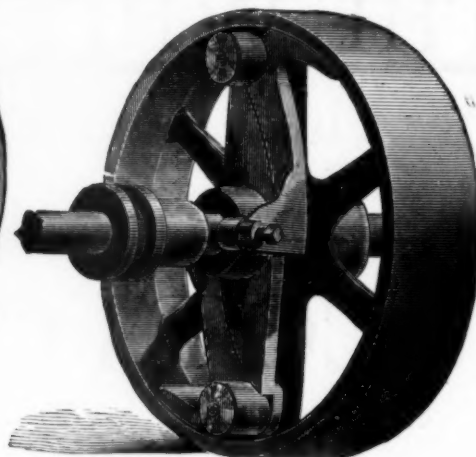
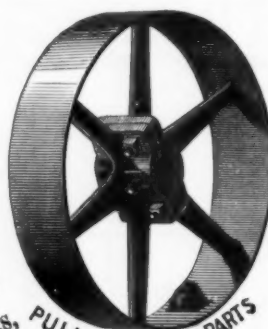
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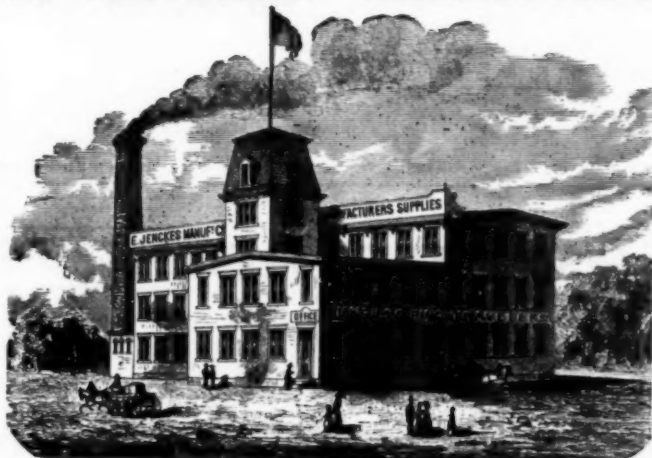
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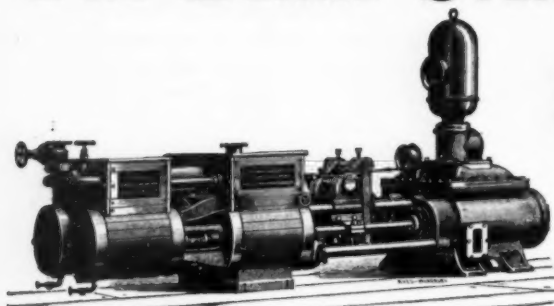
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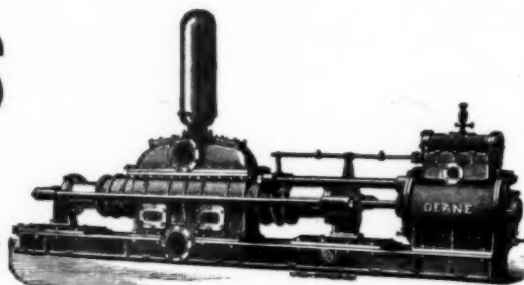
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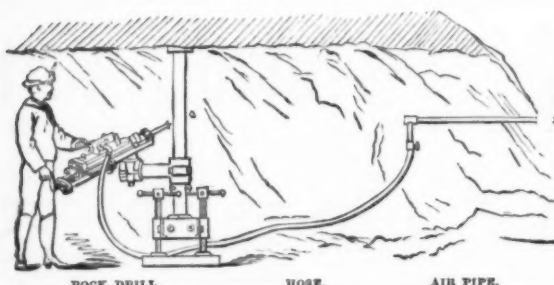
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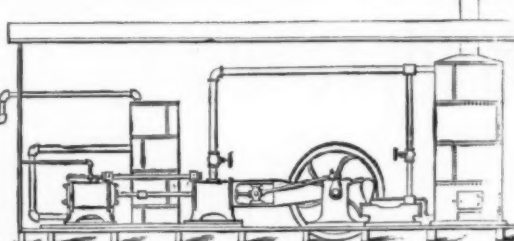
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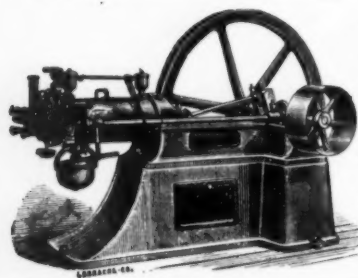
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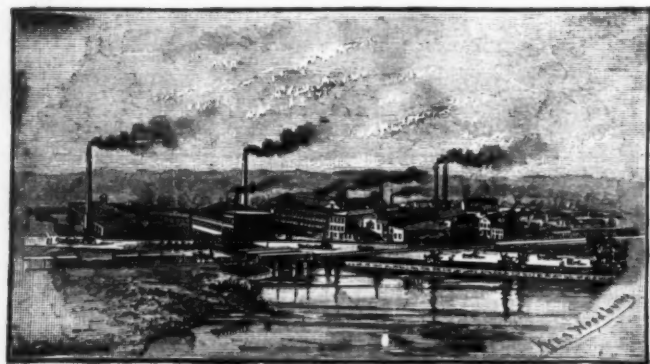
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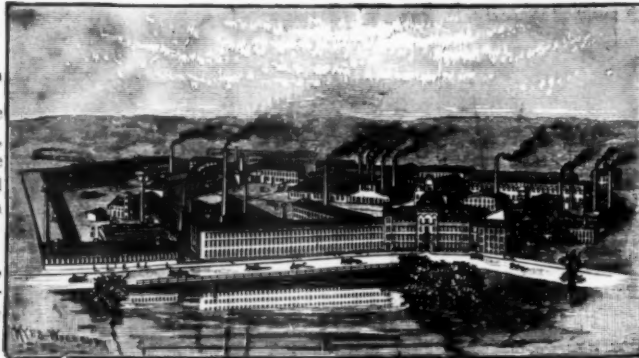
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BALTIMORE, JULY 26, 1884.

CORRESPONDENCE relating to the manufacturing, mining, lumbering and all other material interests of the Southern States is solicited. We invite those interested in the development of the South to make free use of our columns. Reaching so many capitalists in all parts of the United States seeking profitable investment in the South, the MANUFACTURERS' RECORD offers an excellent chance for the people in that section to place the advantages of each locality before those likely to be interested. We will take great pleasure at all times in telling what has already been accomplished in the South, and showing up the opportunities of doing still more,—so if you desire to attract immigration or capital, or if you know of an opening for profitable investment in manufacturing, mining or kindred pursuits, write us an account of it. It will be published free of cost.

Crop Prospects.

The prospect for the crops in the South seem to improve with each day, and almost everywhere the outlook is for the most abundant yield of cereals ever known in that section. Cotton also gives promise of a good yield, despite the unfavorable weather early in the season. Simply as a sample of what the papers from Maryland to Texas are reporting, we append the following from the Times, Selma, Ala.

"The corn crops all around us rustle in the magnificent promise of a fat harvest. A poor corn-field can scarcely be found in the 'Black Belt,' except in one or two localities where everything is trusted to the blundering management of thrifless negro tenants. Reports of the corn crop, as obtained from farmers in different parts of the county, are quite encouraging, and, so far as the bread question is concerned, the present year promises to be one of universal plenty. It has been suggested that the old ante-war corn cribs will be in demand this fall."

Dairy Farming South.

J. H. DIGGLES, COMMISSION MERCHANT,
122 CHURCH STREET,

NEW YORK, July 11, 1884.

Editor Baltimore Manufacturers' Record:

Dear Sir—I notice in the editorial of your issue this week, you state that the Southern farmer should give attention to butter-making, and that there is no country in the world possessing superior advantages for that business. Please inform me how they have the vantage ground in that calling.

Is the hay crop and the pasture such as to make it easy and profitable to keep cows?

I can understand why the Shenandoah Valley is a desirable location for dairies, but how they can make butter to more profit on the cotton lands of Georgia I do not understand. Yours truly,

J. H. DIGGLES.

Perhaps the best reason for saying that dairying can be made successful in the South is to state the facts. There are successful dairies all over the South. Wherever grass grows, and it seems to grow everywhere, and wherever there are people to buy milk and butter, dairying is a success. The fact stands. We know of prosperous dairy farms in and near Atlanta, Ga., Augusta, Ga., Columbus, Ga., Greenville, S. C., Nashville, Tenn., and other points.

Outside of the fact, however, there are many physical reasons why the South has the advantage as a dairy region.

First, the winters are shorter and the expense of feeding is less. During the long cold winter months of the North, when stock must be housed and fed upon costly accumulations of forage, the stock in the milder climate of the South is able to sleep out of doors most of the time and to live upon green forage that grows during the whole season.

Second. In the South there is a larger variety of forage and a longer season for its growth. There are sections in the South where the cow can graze out doors all the year round. There is no section in the South hardly where the farmer cannot have his green rye pasture the entire winter, which he can graze in dry weather, or can cut three or four times. The vetch grows in winter on the coast of South Carolina, on the Bermuda sod, and thus alternates, furnishing a winter forage on the same ground that has supplied a summer hay or grazing crop.

Every species of grass grows in the South, and enormous crops are harvested. Near Calhoun, Gordon county, Georgia, is a dairy and stock farm of 40 years standing, started and run by Col. Richard Peters, of Atlanta, Ga., known over this whole Union as one of the most enterprising dairymen in the country. He has tested every species of cattle,—Devons, Ayrshires, Brahmins, Durhams, Jerseys and Guernseys. He has some 20 acres of lucerne clover, which he cuts four times a year, getting from one to two tons at a cutting. He has thoroughly tested the possi-

bility of successful dairy farming South.

Near Atlanta are a half a dozen of the best Jersey dairy farms in the Union. Mr. J. Wade, Judge J. L. Hopkins, Mr. P. Calhoun and others have them. The most extensive dairy farmer near Atlanta is a Mr. T. L. Johnson, who milks 113 cows and is constantly enlarging his herd. He sells all the milk and butter he can spare, and finds his business profitable. Jersey butter brings 50 cts. a pound. Milk readily sells for 40 cts. a gallon.

All of the root crops that can be used to feed milk cows grow easily and luxuriantly in the South, and have longer seasons than at the North.

The census of 1880 showed the following dairy statistics for the South, which are behind the truth:

	Milk cows.	Milk, galls.	Butter, pounds.
Alabama.....	271,449	267,857	1,997,719
Florida.....	42,174	40,967	353,156
Georgia.....	315,073	374,645	7,424,485
Kentucky.....	301,382	2,513,209	18,211,904
Louisiana.....	146,454	256,841	916,089
Maryland.....	122,907	4,722,944	7,485,851
Mississippi.....	308,178	497,492	7,454,637
North Carolina.....	232,133	446,798	7,212,507
South Carolina.....	139,841	257,186	3,196,851
Tennessee.....	308,900	1,006,795	17,886,369
Texas.....	606,176	1,296,806	13,869,330
Virginia.....	243,061	1,294,499	11,470,923
West Virginia.....	156,526	790,279	9,329,577
	2,740,308	13,645,017	108,816,968

We thus see reported in the South 2,740,308 milk cows, giving 13,645,017 gallons of milk and 108,816,368 pounds of butter.

The truth is that the dairy capacity of the South is simply illimitable. Soil, climate, productions, seasons, all render it an unsurpassed region for the economical care of stock and the cheapest and largest production of milk and butter.

Gloomy Business Prospects in England.

It will doubtless be somewhat difficult for those who claim that Great Britain has prospered under free trade, and that all our industrial troubles are due to protection, to harmonize the following, from the London Times, with their views:

In its summary of English trade for the first half of 1884 the Times remarks that the rather gloomy anticipations regarding trade prospects which were entertained at the beginning of the year have been justified. The volume of business is still large, but it is undergoing a certain contraction, except in the woollen and worsted trade and one or two minor industries. The shipping trade has become decidedly worse during the six months, and nothing seems likely to improve it. Even the most sanguine ship-owners have made up their minds that they will have to run most vessels at a very small profit, and a few at actual loss, until the superabundance of steam shipping, which depresses the freight market, has disappeared by the action of natural causes. Ship-building is, for the present, dead. Very many ship-building yards, especially in the north of England, are completely idle, and the number is increasing. This abrupt check to ship-building accounts in part for the depression in the iron trade; but the trade suffers also from the diminished demand from America for railway material. The coal trade shares naturally, to a considerable extent, the depression in the iron trade, but the coal owners are doing better, on

the whole, than during the depression of 1874-'79. The cotton trade is stationary, and competition, both at home and abroad, is so intense that profits are hard to make, but the situation is no worse than at the beginning of the year, and there is a steady increase in the weekly consumption of raw material in Lancashire, which seems to indicate that English manufacturers are holding their own well.

The condition of the distributing classes is even less satisfactory than that of the producers. The markets for most commodities have for some time past fallen continuously. The produce markets, in particular, have defied calculation. The impression is gaining ground that the average level of prices will not in the future be as high as in the past. Heavy losses have been undergone, but it is likely that the consequences of any further fall will be much less mischievous than those of the formidable decline of the last year or two. The immediate prospect is, in the opinion of the Times, cheerless, and the revival, when it comes, is likely to come from the United States.

Surely these statements do not offer any inducement to us to adopt free trade.

Investments at the South.

A great deal of capital is being invested in Southern manufactures, but at least four-fifths of it comes from the North. New enterprises in the way of starting manufactories are set on foot in the North, and contracts made for machinery and fixtures before anything is done where the works are to be located. The South, however, is just as enterprising as any other section of the country in the matter of donating sites and granting favors to new industrial establishments.—*American Machinist*.

The *Machinist* is correct in saying that a large amount of capital is being invested in Southern manufactures, but it is in error when it claims that four-fifths of it comes from the North. Outside capital is undoubtedly being put into industrial enterprises at the South very freely, but the people of the South are also investing heavily in such undertakings. One of the most gratifying features of Southern progress is the enterprise and push displayed by Southern men in developing their country. Take Atlanta, Birmingham, Chattanooga, or Anniston, as an illustration, and an examination of their growth will show that it is very largely due to Southern men and money. Notwithstanding the general opinion to the contrary, Southern cotton mills have, to a very liberal extent, been built by Southern money, and the same is true of saw mills, flour mills, cotton-seed oil mills, tobacco factories and the many other industries that are now so rapidly increasing the wealth of the South.

THE assessed value of property in Texas shows an increase of \$60,000,000 over last year,—a gain that is so stupendous for one State in one year that it will not be difficult for our readers to accept the figures lately published as to the growth of new industries in the South.

JEFFERSON county, Ala., shows an increase in assessed value of property of \$2,000,000 over last year.

The Tanite Co.

The dull times and blue outlook have not lessened the activity of this substantial concern. The recent visit to Europe of Mr. T. Dunkin Paret, the president of the company, completed arrangements by which its European trade will be doubled during the coming year, and shortly after be quadrupled. In view of this fact, and of the successful business transacted this year, (which most manufacturers have found a bad one,) the company is now arranging for a large extension of its factory. This factory was started in the year 1867 by the erection of a stone building 45 feet long and 32 feet wide, two story and attic, with boiler shed extension. The total

It is hardly necessary for us to say anything in praise of Hollins Institute, the advertisement of which appears in to-day's paper, for it is so widely and so favorably known that its superior advantages are generally understood, and yet a long acquaintance with its workings makes us feel like heartily commending it to the attention of those seeking the very best school for the higher education of girls. Its location, for health, scenery, climate, &c., could hardly be surpassed, situated, as it is, in one of the most picturesque mountainous

Rotary Engines.

Through the courtesy of Mr. E. W. Bliss, 17 Adam street, Brooklyn, New York, manufacturer of special machinery, we are enabled to present to our readers the always interesting subject of rotary engines. Mr. Bliss is engaged in building hoisting and elevator engines, marine engines, steam fire pumps, water motors, air pumps, &c., all of which are constructed on the same general plan, though necessarily differing in detail, as each class is specially designed and adapted for the work to be performed by it. In this issue we shall confine ourselves to the reversible hoisting and elevator engine and the general principles of its construction.

thereby maintaining an equal transmission of power at all points of the revolution. The piston is slotted radially at four equidistant points for the reception and travel of the valves therein. The opposite slots are connected with each other by two holes, in which are fitted a cylindrical tube bored from both ends with an intermediate space left solid, into which springs are placed, which bear against the valves, keeping them in contact with the inner periphery of the cylinder. The piston ends are let in and fitted to heads, which, in connection with the packing rings, form a ground joint. The inner projecting arms of the packing rings are fitted into a corresponding recess in the piston head, and the ends of the arms are in contact with the periphery of the piston. The packing rings are kept in contact with the ends of the cylinder by springs. A metallic packing, invented specially for this engine, prevents the steam or water which may accumulate between the piston heads and the cylinder covers from coming in contact with or escaping by way of the shafts. The packing cylinders are free to move laterally, being kept in contact with the cylinder head by springs.

The reversing mechanism consists of a slide valve which is so connected with the engine as to start, stop and control the speed of the engine.

This engine is instantly reversible when at full speed at any point of the revolution.

The loss by friction is less than nine per cent., varying slightly according to the size of the engine and the load. This presents an important factor in the determination of its economy and durability.

The reversible features of this engine are among its important claims to popular favor.

If the engine is taking steam by way of the upper ports, the engine is reversed by raising the valve, opening the lower ports,

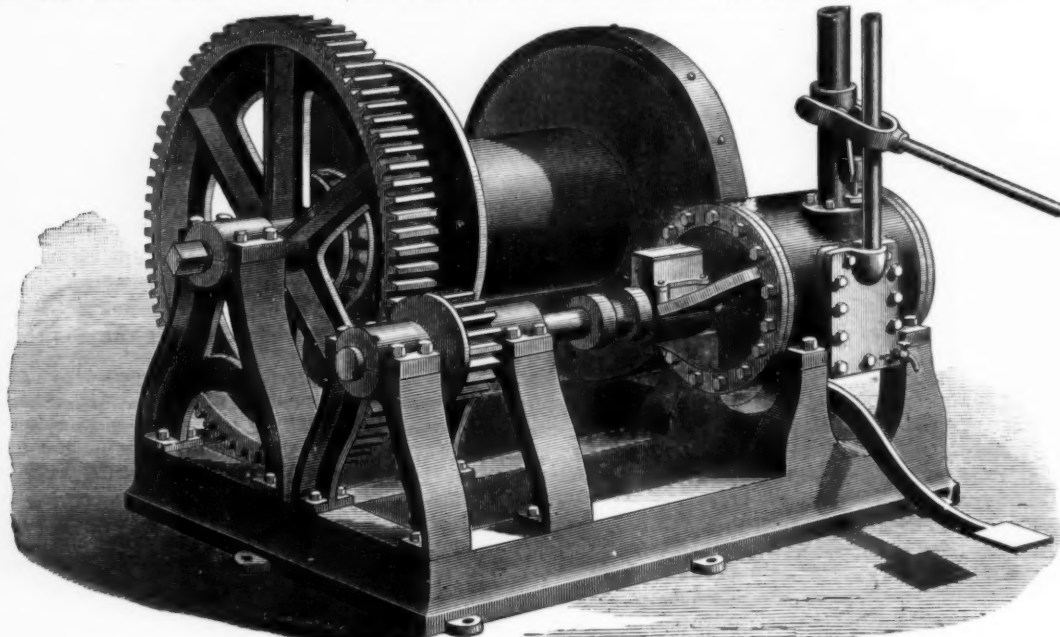


FIG. 1.—HOISTING AND ELEVATOR ENGINE.

floor room of the original buildings amounted to 5,550 square feet. The flooring used at the present time is 34,190 square feet. The new building, for which preparations are now making, will be an extension of, and the same size as, the original stone building. It will be a substantial structure of stone, supported by heavy iron arches which are to span the wheel pit and overflow.

In order to extend and more thoroughly control the water power, and to secure timber and stone for further operations, the company bought during last month from Mr. Robert Huston his farm of 130 acres which adjoined the company's original property. The total amount of land now connected with The Tanite Factory is about 180 acres, and the Pocono creek flows through it for the distance of about one and three-quarter miles.

On the property recently purchased the company is now cutting timber for the preliminary work connected with the improvement of its water power. A new breast-work, cribbing and flume are to be erected at the dam, and new fore-bay and penstock at the factory. This latter is to be larger and more substantial than the present one, the heavier or corner and sill timbers being 14x16 white oak. At present the factory has, in addition to its steam power, a 42-inch Jonval turbine, but in the new penstock a 24-inch Stevenson duplex turbine will be added, and by means of these three motors the various departments can be run independently when desired.

The Tanite Co. manufactures solid emery wheels and the varied machines with which such wheels are applied, and its goods are shipped to all parts of the world. It has agencies in all the principal cities of the United States, and also in Canada, Australia and France, besides sub-agencies in many European and other countries.

sections of southwest Virginia, noted as the health resort of thousands from all parts of the country. With a full corps of able instructors, its standard in literature, science, music and art is very high—holding, in this respect, very much the same position to the women of the South that the University of Virginia does to the men. Moreover, it is a school in which the moral and religious training of its pupils is held to be of the first importance, though it is absolutely unsectarian. Prof. Cocke, who, if we mistake not, has been at the head of Hollins for over a third of a century, deservedly ranks as one of the foremost educators of the country.

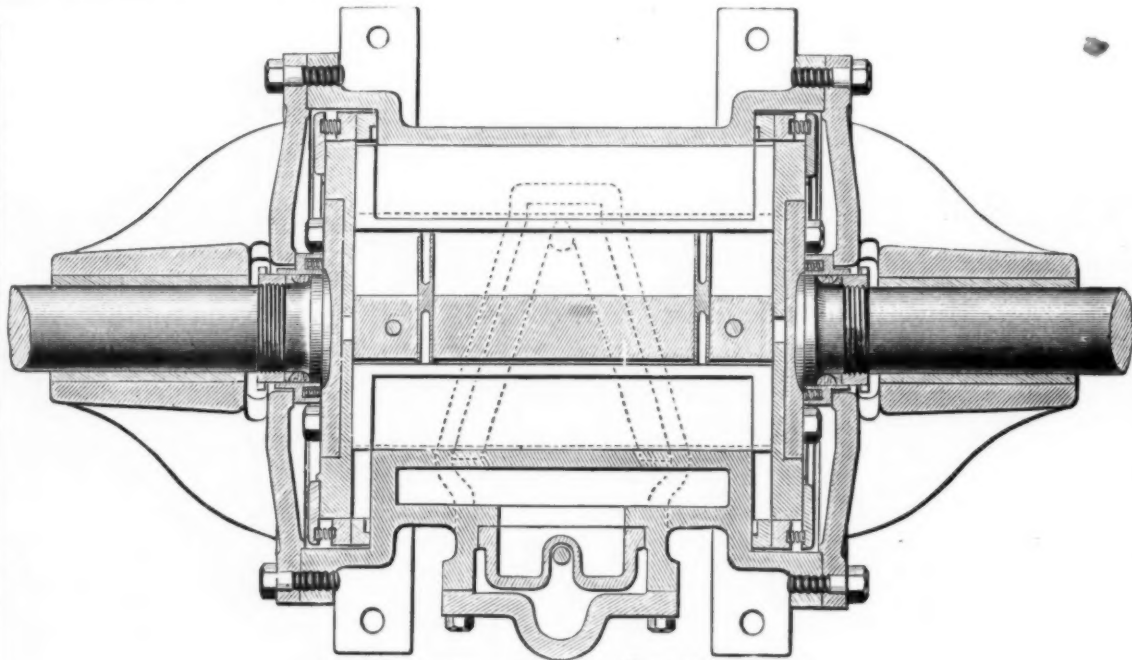


FIG. 2.—HORIZONTAL SECTION OF REVERSIBLE ENGINE.

Fig. 1 represents a perspective view of the hoisting engine.

Fig. 2. Horizontal section of the reversible engine.

Fig. 3. Vertical section of the same.

Figs. 4 and 5 and 6. Outer edge side traverse central section of the piston valve.

Figs. 7 and 8. Longitudinal section and end view of reciprocal spring tube.

Fig. 9. Plan of the packing ring, and fig. 10 plan of the piston head.

By reference to these cuts the construction and operation of the engine may be easily understood.

The parts of the cylinder in which the piston revolves are true to a common centre. The intervening parts are shaped to give a reciprocal motion to the valves,

at the same time connects the upper port with the exhaust in the valve seat, steam filling the lower half of the cylinder, delivering its pressure on the piston valve in position between the ports; as each valve comes under the effective pressure, the opposite valve prevents the escape of steam which would otherwise occur. These piston valves are perfectly balanced slide valves, self-adjusting and self-packing. The recess in the piston valves and the clearance between their contact sides and the races in the piston and between the arms of the packing ring allow the circulation of steam during the reciprocal movement of the valves; and when they have reached the inward or outward stroke, they are instantly made steam tight by the

pressure of the steam holding them against their seats. Neither the piston nor the piston heads touch any part of the cylinder. It will be seen from the foregoing that of all the friction surface required to be kept in close contact the stationary is rigid, and the moving is flexible and self-adjusted, having a large reserve of material for wear.

These engines are and will keep steam tight.

mechanism, which form the source of nine-tenths of the trouble encountered with piston engines.

2. In its reliability. This engine will do its work whenever called upon. It has no valves to stick or get out of order, no dead centre, no trouble with water in the cylinder, it does not require an experienced engineer to run the same. It is simple, durable, reliable, with great strength and less material than in corresponding recip-

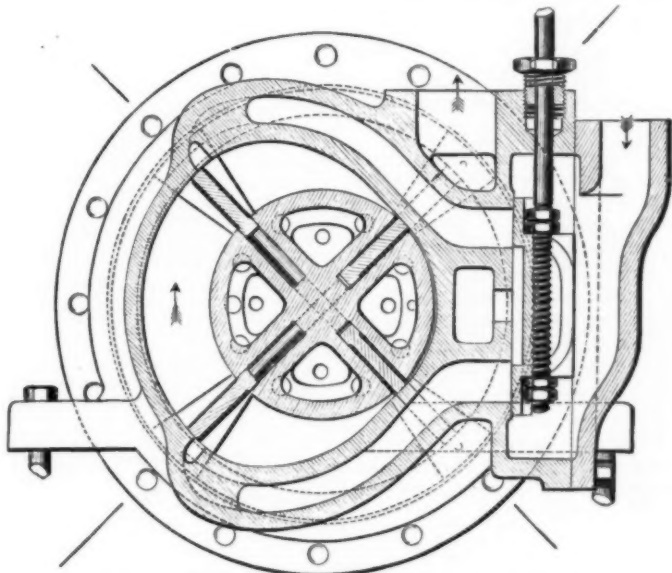
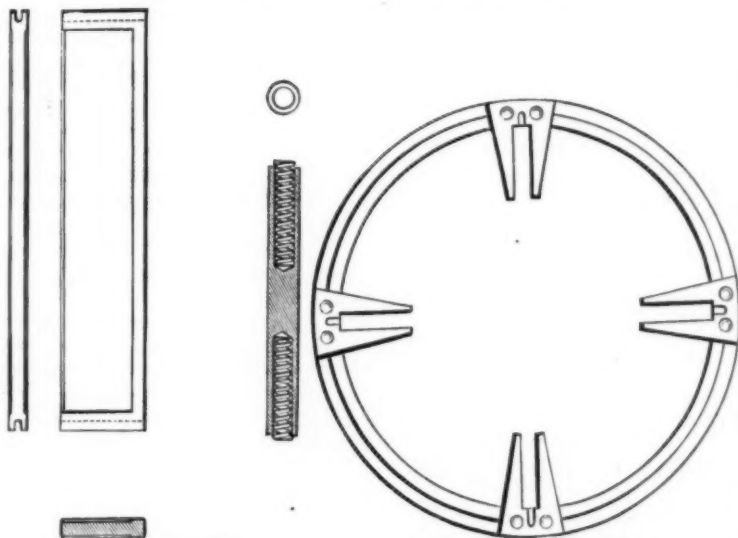


FIG. 3.—VERTICAL SECTION OF REVERSIBLE ENGINE.



FIGS. 4, 5, 6, 7 and 8.

It will be readily seen that this engine has a peculiar adaptability for hoisting and elevator purposes. It transmits uniform power, and is instantly reversible at any speed at all points of the revolution. It is claimed that it is the best engine in every detail of construction, and contains

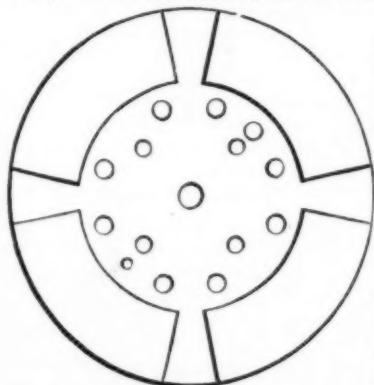


FIG. 10.—PLAN OF PISTON HEAD.

among others the following advantages, which, in their entirety, it is said, cannot be claimed for any other engine:

1. In the simplicity of its construction, having no piston rod, crank, balance wheel, cross-head, slide, eccentric, strap key, dead centre, or other complicated

reciprocating engines. They cannot be thrown out of adjustment, nor can they be broken by any usage to which engines are generally liable. The friction is light, and the wear correspondingly less, and it will keep steam tight.

3. No rigid portions of these engines are subject to be brought in contact from wear or uneven expansion. All parts subject to friction are metal properly proportioned to the distances to be traveled under friction. They are free from vibration, requiring no special foundation.

4. They transmit uniform power at all points of the revolution. They are more economical in the use of steam than the reciprocating engine of the same horse power. They cannot be injured by water from the boiler, even when moving at high speed.

5. Condensers can be used with greater efficiency with this engine than with a reciprocating one. Uneven expansion does not increase friction or wear. No steam or water can escape by way of the shaft. The shaft revolves in oil, requiring no outside packing.

6. All parts subject to friction are enclosed in a steam-tight cylinder protecting them from dust and grit.

Those wishing further information can obtain it by applying to the manufacturer.

Pig Iron Making in the South.

A Cincinnati correspondent of Bradstreet's, who is well posted in iron matters, writes that under date of April 17 and November 6, 1882, he endeavored to set forth the facts that lay at the foundation of the iron industry in Alabama, Tennessee and Georgia, and that were likely to govern its future. Two years have closely borne out what was therein said. We have got to the point now where the supreme test is being applied to the theories on which all the various iron-producing districts have been built up. It is going to be settled before another twelve months who will make the future iron for this country. It can already be stated with a fair degree of certainty who will not make it, and this unwilling negative list includes the centres of some ambitious and costly projects.

The real situation has been much obscured by the dissemination of nonsense by enthusiasts, politicians and speculators. This is more particularly true of the South. A fresh company begins a plant and in the exuberance of its early confidence proclaims that it is going to make pig iron at \$10 per ton; Watterson seizes the statement and loads another gun to fire at Pennsylvania and the tariff; the New York Herald promptly responds; the ponderous Times echoes, and then the whole free-trade battery gets to work. Why tax the nation that pampered monopolists in Pennsylvania may get still richer on \$20 iron when Alabama can supply the world at \$10? Why, forsooth?

Again, a heavy owner of Southern ore and coal properties, bought to sell, feels the need of a fresh accession of Northern capital and energy, and is able to show in the plainest of print and by the most convincing of figures that pig iron can be made in his neighborhood at a cost that will ultimately shut up every furnace in Pennsylvania and Ohio. Fortunately for the South these fresh young enthusiasts in iron making and these convincing owners of mineral lands have had a severe backset in the experience of the past few months. Henceforth we shall have more fact and less folly.

I don't propose to go into detailed estimates of cost of manufacture, but I may interest your readers in the iron trade by some observations based upon a rather extended and somewhat intimate knowledge of iron making in Ohio and the South.

The first and most striking feature about the whole business is the tendency of hard times to equalize cost in the different districts; that is, the reduction in cost will be greatest in districts where the cost is highest, and least in districts where the cost is lowest. As an illustration, two years have reduced cost in the Mahoning valley and western Pennsylvania about \$4 a ton. The reduction in Virginia and the South is scarcely a dollar a ton. So that while the inequality is great in a high market, it almost disappears in a low market. The elements of cost in the South are very nearly fixed and invariable; those in northern Ohio and western Pennsylvania are dependent upon conditions back of the blast furnace. Thus if pig iron advances \$2 a ton, Lake ore will promptly follow with a proportionate advance, and coke will not be far behind in claiming its share of the improvement. So the producer of pig enjoys but a share, sometimes a small one only, of the improvement. In the South, if better prices prevail, the furnace reaps the profit.

But against this Pennsylvania and Northern Ohio enjoy the advantage of wider experience, more close and intelligent management, as a rule, and plants adapted to the conditions of their situation. In the South everything has had to be learned, and, unhappily, there is a good

deal yet to be found out. Companies have learned, at great cost, that a Pittsburg blast furnace cannot be planted in Birmingham and the expected results secured. The special local conditions of ore and fuel must govern largely the manner of building and operating the furnaces. The neglect of this and other similar considerations, born of too limited experience, has added hundreds of thousands of dollars to the cost of Alabama and Tennessee pig iron not counted into the original estimates, and hence we have the anomaly of bonded debts growing and some absolute failures in the case of companies that can show you any day a comfortable profit on sales. It seems a pretty strong statement, but I venture to say that if every leading furnace company in Alabama and Tennessee had at the outset charged to the cost of iron for five years \$2 per ton for scaffolds, burning out of linings, breaks, accidents and the various vicissitudes that actually occur, the result would not have been far from right. Of course, with enlarged experience and improved facilities these drawbacks will disappear. But they form now an important element in calculating the strength of Southern iron-making districts. Yet I believe, in spite of all existing obstacles, the South will go on developing rapidly.

In April, 1881, I wrote you that, if conditions remained unchanged, Alabama, Tennessee and the Virginias would in two years be the controlling influence in the Western iron trade. It has fully come to pass. The Southern furnaces, in competition with each other, now establish the market as far North as St. Paul, Chicago, Detroit and Cleveland, and Pennsylvania and Ohio must meet the prices or turn off the blast. A good many makers have done the latter. The Hocking valley, which has fourteen furnaces and has been the center of some of the most magnificent iron projects ever put on paper, has run up its flag of surrender. But one small furnace of the fourteen is running.

The Mahoning valley will stay. It is favorably located for reducing the lake ores, and it has some strong, well-managed companies that will make iron as long as anybody in this country. But considerably over one-half of its productive capacity is idle, and some of its largest firms have been carried down by the tide. The Chenango valley, with still greater capacity, is in just about the same condition. I take it that the average cost of the different grades and qualities in these districts is \$16 per ton at the furnace. On this basis the metal could not be sold in Cleveland at less than \$17 for the average of grades and kinds without actual loss; nor in Chicago at less than \$18.50, nor in Detroit at less than \$18. With most furnaces, and with the usual methods of selling, even these figures would score a loss on every ton.

In Tennessee the leading companies can now make iron at \$12, and in Alabama at \$12, counting all ordinary items of cost. If the extraordinary items before referred to can be overcome or reduced, say to \$1, as they certainly ought to be speedily, Southern iron can be sold in Detroit, Chicago, Cleveland and Buffalo at about \$18 per ton, (average of grades,) provided stockholders can hold on without profits or interest on their investment.

Such is about the situation as it appears in the West. In the deep depths that we seem to be getting into there is neither Greek nor Jew. The best-situated producers in all the districts stand pretty nearly together on the slenderest margin of profit. Those a little less fortunately situated are quietly pocketing a loss with each ton of iron sold. The last refinements of economy in production are already in force. As pig iron is practically all labor, the next step toward reduced cost, if any is taken, will have to be in cutting wages remorselessly. With labor at 75 cents a day Southern makers feel that they could meet British iron in Western markets without any tariff protection. But with wages where they are it is protection or idle furnaces. And on this issue I apprehend there will be some developments in Tennessee, and, perhaps, Alabama, about November, that will surprise some of the party engineers.

CONSTRUCTION DEPARTMENT.

We publish, every week, a list of every new factory, of whatever kind, projected anywhere in the South; every railroad undertaken, and every mining company organized. This information is always fresh, and, by enabling manufacturers to correspond with the projectors of such enterprises before their supplies of machinery have been purchased, is of great value. Manufacturers will find it to their interest to read this department carefully each week.

The Georgia Marble Co., Tate, Ga., previously reported, contemplate putting in a large amount of new machinery this year in enlarging the developments of their enormous quarries.

The Barker Tobacco Co., stock \$150,000, has been incorporated in Carrollton, Ky.

The St. Simons Mill, Brunswick, Ga., is being thoroughly overhauled and repaired, and putting in new saw-mill machinery.

The Baltimore & Ohio Railroad will build a round-house and repair-shops at Harrisonburg, Va.

The Dallas Press-Brick Co., stock \$100,000, has been incorporated at Dallas, Texas.

The city council, Fort Worth, Texas, will build two school-houses, to cost \$11,000.

John D. Wilson, Altamonte, Fla., has been putting a large amount of new machinery into his saw mill.

Dietrich & Pleasants, Danville, Va., will build a new jail at Chatham.

J. H. Lambeth and Dr. J. T. Strickland, Thomasville, N. C., will build a tobacco factory.

The Vicksburg Manufacturing Co., Vicksburg, Miss., previously reported, will soon have their machinery in position making spokes.

The Tombigbee Wooden Ware Manufacturing Co., Columbus, Miss., contemplate increasing their stock to \$30,000 and putting in new machinery for manufacturing furniture.

Mount Vernon, Coshocton & Wheeling Railroad Co., of West Virginia, have decided to survey from Roscoe to Wheeling, W. Va.

It is reported that H. Fitzgerald & Co., Gallatin, Tenn., will remove their cotton factory to Arkansas.

A boiler in the saw mill of Wilson Bros., Glenville, W. Va., exploded July 16, doing much damage.

J. J. Dillard, Lynchburg, Va., has purchased the Hollins flour mill property, at that city, and will put in a complete outfit of machinery.

The Virginia Compress Co., of Norfolk, Va., are at work building their new press, previously reported, which will be operated in a different way from present compresses. Capital of company will probably be put at \$100,000.

The Knoxville Woolen Mills Co., previously reported, have commenced work on the foundation of their extensive building.

The Mountain Mills Co., (cotton factory,) Barton, Ala., expect to add \$20,000 worth of new machinery.

D. G. Brown, Crossville, Tenn., will receive proposals till August 9 for building a court-house.

Work has been commenced on the foundation of the cotton-seed-oil mill at Newnan, Ga., previously reported, to be erected by R. D. Cole & Co.

Alice Furnace No. 2, Birmingham, Ala., has shut down for repairs.

The Wheeler Salt Co., stock \$100,000, has been organized at Colorado, Texas.

A. A. McKethan & Son, Fayetteville, N. C., carriage builders, have added a planing machine and will probably put in other machinery.

Ellis & McClure, Jacksonville, Fla., are preparing plans for an extensive enlargement of the Tremont House of that city.

St. Clair Abrams, Tavares, Fla., will not rebuild his saw mill lately burned, as previously reported, having made other arrangements, and turned the business over to Carter & Cross, who will build, at once, a planing mill, sash, door, blind and general woodenware factory.

John Meers will establish a carriage and wagon factory at Fort Mason, Fla.

The Bartow Manganese Mining and Manufacturing Co., stock \$50,000, paid in \$30,000, has been incorporated in Cartersville, Ga., by M. G. Dobbin, M. G. Dobbin, Jr., D. C. Dobbin, Edward E. Freeman and J. D. Cunningham, to mine manganese and other minerals.

The boiler of Wilson's saw mill, near Ellenboro, W. Va., exploded July 18, doing much damage; loss \$3,500.

Work has been commenced at Leeds, Ala., on the Demopolis, Leeds & Gadsden Railway, to run down the Cahaba Valley, reaching hematite ore lands of the Sloss Furnace, of Birmingham, which will be developed by this company at once.

The Birmingham Novelty Works Co., Birmingham, Ala., capital \$10,000, have just started up for making castings, &c.

The Union Compress and Warehouse Co., of Houston, Texas, stock \$500,000, has been incorporated by B. A. Botts, D. S. H. Smith, F. A. Rice, T. W. House, and others.

The Houston, East and West Texas Railroad, will probably be extended from Shreveport, La., to Magnolia.

Dinguid & Son, New River Depot, Va., are pushing work on their foundry, previously mentioned.

A. H. Motley, Reidsville, N. C., will double the size of his factory.

Efforts are being made to establish a cotton factory in Pine Bluff, Ark. F. G. Smart is soliciting subscriptions and can give particulars.

The Pulaski Cotton & Woolen Mill, Pulaski, Te.n., will probably be rebuilt if sufficient money can be secured.

P. W. Shaefer, of Pottsville, Penn., has purchased 100,000 acres of timber land in Sullivan and Johnson counties, Tenn., and it is reported will erect a large factory at Union Depot, Tenn.

Wilson & Son, Greenup, Ky., are overhauling their mill and will probably put in new saw machinery.

Bids are invited by the Court-House Committee, Accomack county, W. Va., for building a new court-house.

The Burnham Grate Co., Birmingham, Ala., previously reported, will build their foundry this summer.

The Eureka Bolt Works, stock \$300,000, previously reported as organized at Alexandria, Va., will erect factory at once.

The commissioners to receive bids for building a \$1,000,000 capitol at Atlanta, have decided to reject all bids and advertise for new ones.

H. Buddinberg, Morrilton, Ark., is building the factory of the Furniture Manufacturing Co., lately organized in that town, as previously reported.

Charleston, W. Va., is still discussing the need of water-works.

Garrepy & Co., Fort Worth, Tex., will build foundry, boiler works, etc., at Temple, Tex. Have secured ground.

H. M. Stuart, Chestertown, Md., will build a \$13,500 jail in Kent Co., Md.

There is some prospect of railroad shops being located in Lake City, Fla.

J. T. Wilder, of Chattanooga, Tenn., contemplates building 400 room hotel at Roane Mountain.

The Commercial Oil and Soap Co., stock \$50,000, has been incorporated in West Virginia by H. H. Dils, Jr., and J. M. McKinney, of Parkersburg, W. Va., and N. L. C. N. and L. D. Upson, of Cincinnati.

The Co-operative Foundry and Stove Works, stock \$30,000, has been incorporated in West Virginia by August Kirke, J. S. Godfrey, Thos. Kirwan, Henry Moetsen and Frederick Schmidt, of Martin's Ferry, Ohio.

The new building previously mentioned as being erected by the Raleigh & Gaston Railroad at Raleigh, N. C., as a car-wheel foundry, is about completed.

Carpenter & Sons, Lincolnton, N. C., will enlarge their cotton mill and nearly double their machinery.

The Louisiana Coopersage and Manufacturing Co., previously mentioned, corner St. Louis and Rochelare streets, New Orleans, La., is erecting a factory 100x220 feet for the manufacture of barrels and coopersage.

The Jackson Lumber Company has been organized at Owensboro, Ky., with a capital of \$10,000. The parties interested are C. D. Jackson, A. R. Yeiser, R. E. Alexander and J. H. Hickman. A mill will be built.

BURNED.

D. W. Bragg's tobacco factory, Petersburg, Va.; loss, \$10,000.

Steam saw mill of A. Johnson, near Live Oak, Fla.; loss, \$5,000.

The paper mill of W. H. Hoffman, at Alesia, Baltimore county, Md., was damaged about \$5,000 by fire.

Fertilizer factory of Zell Guano Co., Baltimore; loss \$100,000.

NEW PUBLICATIONS.

The Magazine of Art for August has for a frontispiece "Among the Missing," painted by Walter Langley. The most important articles of this number are "F. J. Gregory, A. R. A.," by Frederick Wedmore; "The Marvel of the World," by David Hannay; "A Child's Fancies," by Robert Louis Stevenson; "Going Round with the Plate," "The Austrian Museum," "Rondeaux of the Galleries," "Walks in Surrey," &c. This deservedly popular monthly continues to win public favor. Cassell & Co., limited, New York, publishers.

The Manhattan for August contains: Oursay and the Sierra San Juan, Colorado, frontispiece, engraved by Gamm. The Yellowstone National Park, by Ashley W. Cole; Trajan, a novel, chapters IX, X and XI; Sunshine and Shadow, a poem, by Walter Learned; Paul Delaroche and his Pupils, by Ernest Knauff; Poe in Paris, by Lewis Rosenthal; Tilly Bones, a story, by E. W. Bellamy; My Diary in London—I, by Kate Field; Knickerbocker Eyes in Mexico—II, by Frances A. Bartlett von Glumer; Emerson as an American, Julian Hawthorne; The New Produce Exchange, by Montgomery Schuyler; Women Artists of the Olden Time, by J. Leonard Corning; An Incident in the Life of Dr. Jane Temple, a story, by Clara Lanza; Retrospections of the American Stage, IV, by John Bernard, with notes by Laurence Hutton, Brander Matthews; and other articles.

Westinghouse Engine Items.

The Albany Oil and Refining Co., Albany, Ga., are putting in a 30 horse-power Westinghouse Automatic Engine.

The Howard Oil Co., of Houston, Texas, have purchased a 30 horse-power Westinghouse Automatic Engine.

The Catawba Oil Co., Chester, S. C., have recently purchased a 65 horse-power Westinghouse Automatic Engine.

The electric light company in Aberdeen, Miss., start up with the Brush light and the Westinghouse engine.

The Westinghouse Machine Co., of Pittsburgh, Pa., have recently shipped to the government of New South Wales, Australia, one of their 160-horse-power automatic engines, to be used in electric lighting.

Givernaud Bros., who operate extensive silk mills at Hoboken and Hackensack, N. J., have just put in two more 60-horse-power Westinghouse automatic engines, making the seventh order they have placed with the Westinghouse Machine Company within two years. These engines have replaced other engines, with very marked results as to quantity and quality of product and economy of fuel.

The East Florida Land and Improvement Co. is composed of English capitalists, who are operating extensively in the coast counties. They are building a large saw mill at St. Augustine, and have contracted with the Westinghouse Machine Co., of Pittsburgh, Pa., for two of their automatic engines, of 160 and 65-horse power respectively. The mill is planned on the independent system, doing away with countershafting to a large extent.

The Westinghouse Machine Co. have just built for the furnace of J. E. Thropp & Co., of Edge Hill, Pa., a portable outfit for crushing ore and slag. It consists of a flat car, on one end of which is mounted a Westinghouse Water-Tube Boiler and on the other a Gates crusher, to which is coupled directly a 30-horse-power Westinghouse engine, the coupling being made to serve as a breaking piece as well. A friction gear also connects the engine with one of the car axles, and the car is, therefore, self-propelling at will.

Jas. Edwards & Co., of New York, the well-known builders of centrifugal pumps, are building a novel dredging machine for the Okeechobee Land and Improvement Co., to be used in draining the swamps of southern Florida. It consists of a huge pump, mounted on a float and driven by a direct coupled Westinghouse Engine of 125-horse power, making 300 turns per minute. At the outboard end of the suction pipe is a series of revolving knives which stir up the sand and mud, which, when in suspension, is sucked up by the powerful current and discharged over the dike. This plan has proved very efficient elsewhere.

ADVERTISERS wishing to reach the manufacturers of all classes, mining companies, steel, iron and hardware dealers of the entire South, cannot find a better medium than the BALTIMORE MANUFACTURERS' RECORD. We are always prepared to furnish proof of our claims as to circulation.

LOCKWOOD, GREENE & CO.

MILL ENGINEERS

Office, 65 Westminster St., Providence, R. I.

Carefully prepared plans, specifications and estimates furnished for the construction, equipment and organization of new mills and the revision and improvement of old.

MANUFACTURING.

Subscribe to the *Baltimore Manufacturers' Record*. Price \$3 per year.

BALTIMORE.

MR. JOHN N. MARQUETTE, No. 6 West Falls avenue, reports his business as looking up, considerable new and repair work having come in. The prospects for a heavy fall trade are very encouraging.

MESSRS. E. J. CODD & Co., machinists, have a great deal of new and repair work on hand to complete, such as tanks, boilers, etc., for firms in the city.

MESSRS. H. BALDERSTON & SON, proprietors of the Baltimore Wire Works, 66 South Calvert street, have on hand a full assortment of their goods, and report the demand as very encouraging. During the past two months they have been remarkably busy, and from the number of large and small contracts on hand it looks as if it will continue busy until their fall trade begins.

MESSRS. W. J. CLARK & BRO., manufacturers of the well-known patent improved hydrants, report this branch of their business as very bright. Since first placing these hydrants on the market they have met with flattering success, and until now the demand at times has exceeded the supply. They have received orders from the city, and a trial so well pleases the users that they have doubled their orders. In this way a large and remunerative business has been opened up.

MR. PHILIP R. VOGEL, dealer in metal and metal goods, 79 German street, reports his business on the increase, which has been the case for some three weeks. In this establishment can be found a complete assortment of goods represented, and the prices the same as in New York. He handles a large variety of goods, and those in need of anything in his line will find it advantageous to write for prices, &c.

MR. JOHN B. ADT, engineer and machinist, No. 88 N. Holliday street, has on hand a large number of orders for hoisting machinery, tobacco granulators and repairs for same, and a liberal amount of miscellaneous repairs.

MESSRS. R. M. SPEDDEN & Co., machinists, S. Broadway, are doing considerable work for the Baltimore Scow Co., overhauling and putting in new tubes in boiler of tug Hercules, and other repair work. They are also putting in new steel boiler and overhauling engine and machinery in general of tug Emma, and are at work on several English steamers and other foreign vessels, besides a large amount of miscellaneous repair work.

STOKES & PARRISH, machinery manufacturers, of Philadelphia, have merged their business into the Stokes & Parrish Machine Company. Capital \$150,000.

IN GENERAL.

The director general of the New Orleans Exhibition has accepted engines for the motive power of the exposition as follows: W. A. Harris, Providence, R. I., one 650-horse power and one 150 horse power; Robert Wetherill & Co., Chester, Pa., two 300-horse power each; E. P. Allis & Co., Milwaukee, one 500-horse power; Armington & Sims, four of 125-horse power each; Westinghouse Engine Company, two of 200-horse power each; Brown Engine Company, Fitchburg, Mass., one 400-horse power; Cummer Engine Company, Cleveland, O., one of 180-horse power and two of 300-horse power each; Taylor Manufacturing Co., Chambersburg, Pa., one 200-horse power; Smith, Myer & Smier, Cincinnati, one 200-horse power; Lane & Bodley Company, one 75-horse power; Buckeye Engine Company, one 125-horse power; E. M. Ivens & Co., New Orleans, one 100-horse power; Novelty Iron Works,

one of 200-horse power; Jerome Wheelock, one of 280-horse power, and Hoover, Owens & Rentschler, one of 500-horse power; or, in all, 5,360-horse power of engines, besides the engines that will be required for the electric lights. Major Burke is also closing arrangements for boilers to supply 6,000-horse power and for shafting amounting to 12,000 feet in length and ranging from 2½ to 6 inches.

THE Egan Company, of Cincinnati, Ohio, have just completed several newly-designed machines of special interest to a large number of wood-workers, on account of the many fine points embodied in their construction. Among the number we may mention their fast-feeding special flooring machine, which will turn out a first-class quality of flooring in either hard or soft wood at the rate of 100 lineal feet per minute. This machine is provided with three pair of large feeding rolls, and it will work stuff 9 inches or 14 inches wide by 3 inches thick, finished sizes. Their new self-feeding rip saw is well adapted for use in any factory where a large amount of ripping is to be done, as the work performed by it is much more rapid, as well as more smooth and even, than can be done by hand. The company have already placed several of each of these machines with parties who had thoroughly canvassed the market and finally decided on the Egan Company's make.

MANUFACTURING IN THE SOUTH.—In the *MANUFACTURERS' RECORD* for July, in an article on manufactures, signed "S.," it was suggested that the climatic influences in the South would work to the disadvantage of the Southern manufacturer. This may be the case in the extreme low lands, but not in the mountain districts.

I have employed a number of skilled workmen in the Northern States for many years, and have employed men in the South on the same kind of work. I received fully as much work from the workmen in the South. My experience is among the mountains.

At the foot and in the mountain regions there is a class that seem especially adapted to be operatives. They are active, healthy people, learn very quick, and are attentive and persevering; many of them are very ingenious and mechanical.

The families are large—from 10 to 18 in the family—and are cheap laborers.

They are deficient in book-learning; but, by their natural social disposition they learn of the world's ways, and are ahead of the Northern operative in general intelligence.

Those parties about starting manufacturing will do well to note these facts. W.

HARDWARE.

Trade has been moderately fair, with but few changes in prices. Salesmen who lately started South are sending in some pretty good orders, and report that the prospects are decidedly flattering for a heavy fall business.

MESSRS. SAM'L G. B. COOK & Co., of this city, have taken the agency for the Buckeye Combined Husker and Binder, for husking corn and tying fodder, wool, flax, &c., which is made of malleable iron, tinned and polished, weighs only an ounce, and is so light as to be easily held in the hand. It is shaped so as to fit the hand comfortably, and, as a husker, has proved itself superior to anything in the market. In merit, as well as in style and in price, the Buckeye is one of the most salable things in the market. The ease and rapidity with which it can be used for husking corn, as well as tying fodder, &c., with tarred and other kinds of twine, makes it invaluable to every farmer.

Nails have again weakened in price, and, while they are nominally quoted at \$2.30, sales are made at lower figures.

THE Ashland Iron Co., of Baltimore, whose extensive furnace is located in Baltimore county, have decided to shut down, owing to the depression in the iron trade. It is understood that this company have been running at a loss for some time, but it is said to have no debts, except what may be owing to its president, Mr. Geo. Small. Mr. Small claims that iron cannot be made and sold at profit at present prices, either in this State or in any of the other Southern States.

Mr. Small, president of the Ashland Iron Company, in an interview with a reporter of the Sun, said that "in the past twelve months they have sunk half of the surplus capital, and it has been decided to shut down the works rather than continue on at further loss.

There is an inclination among weak companies, he said, to hold on by the eyelids until all their capital and credit are exhausted, when they are forced out of business.

The Ashland Company is entirely solvent, and he, as the president, is the only creditor. When better times come, his company will have the means with which to renew operations. Mr. Small said the depression in the iron market has been caused by overproduction, and pig iron is selling at from \$16.50 to \$20 a ton, which is below the cost of production. The business has been broken down by the rush of capital into new enterprises in that line, put there by persons who figured out great profits in advance, knew little or nothing about iron making, and as every new furnace added that much more to the supply, the present break in prices and depression followed as a matter of course. Baltimore is not a consumer of mill iron, because there are no running iron mills to take it, and the markets for it are at other places, where cost of transportation has mainly caused the losses which the Ashland has made. Mr. Small said further that the Southern States cannot sell iron cheaper than the Middle States.

There are so many items and conditions incident to the trade that a thorough knowledge of it is necessary for success. A furnace may have coal, iron ore and limestone convenient, but if its market is at a distance the transportation takes away the profit. The Ashland furnaces have a capacity for the production of 600 to 700 tons of pig metal per week, or 35,000 tons a year, but the output has been about 25,000 tons. About 200 hands were employed in the different branches, including workers in the ore banks and at the furnaces. The outlook is not favorable for improvement in the iron market for some time, and Mr. Small, for his company, states that the Ashland will remain out of blast until there is a margin of profit above the cost of production."

WHEN you go to Cincinnati stop at the Palace Hotel. You will find comfortable well-furnished rooms, good meals, polite and accommodating attendants,—everything, in fact, calculated to promote your comfort and make your stay pleasant. It is a new hotel, and everything about it is new, fresh and attractive. The charges are as low as those of any other first-class hotel.

Our readers will confer a favor upon our advertisers and upon us, as well as benefit themselves, if, whenever they write to anyone advertising in this paper, if it is only for a catalogue, they mention that "your advertisement was seen in the *BALTIMORE MANUFACTURERS' RECORD*." A careful compliance with this request will be much appreciated.

THE Egan Co., of Cincinnati, manufacturers of wood-working machinery, write to us under date of July 21 that

"Business with us is very good considering the general dullness and depression, inquiries coming in freely from all sections of the country. In this respect the South is holding its own, and we are selling a great deal of machinery in that section."

If you contemplate the erection, extension, or alteration of any Mill, Factory, or Mechanical Works of any sort, requiring Steam, Water, or Gas to be introduced, it will well repay you to send for our Catalogue and Price-List. It contains upwards of 600 Cuts, and will be found of service to Pipe-Fitters, Engineers, Superintendents of Railroads, Mills, Factories, Water, Ice, Oil and Gas Companies, and all who are interested in the use of Steam, Water, and Gas, and is an exhaustive book of reference for the selection of such goods.

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Derby Roll Top Desks.

—Best Office Desk in the World.—



Cherry, Walnut, Oak, Ash and Mahogany.

Send for Illustrated Catalogue.

DERBY & KILMER DESK CO.

55 Charlestown St., Boston, Mass.

Steam

Wrought-Iron Pipes, Cast-Iron Pipes, Boiler Tubes, Spiral Riveted Wrought-Iron Pipes, Cast-Iron Fittings, Wrought-Iron Fittings, Malleable Iron Fittings, Bent Coils of Wrought Iron Pipe for Heating, Boiling, &c., Steam Radiators, Brass and Iron Cocks and Valves, Radiator Valves, Openway Valves, Boiler Trimmings, Gauge-Cocks, Steam Gauges, Water Gauges, Steam Whistles, Lubricators, Oil and Tallow Cops, Revolution Counters, Gongs, Steam Boiler Tube Cleaners, Steam Boiling Kettles, Feed-Water Heaters, Pressure Regulators, Dampers, Regulators, Steam Traps, Glue Heaters, Injectors, Inspirators, Steam Pumps, Syphon Pumps, Engine Governors, &c.

Contractors for Steam-Heating Apparatus of all kinds.

Water

Wrought-Iron Pipes—Plain and Galvanized, Heavy Cast-Iron Pipes, Fittings of all kinds, Cast-Iron Soil Pipe, Green-House Boilers, Pipe and Fittings, Pumps of every description—Steam or Hand-Power, Fire Hydrants and Valves, Street Main Valves, Foot Valves, Hose Valves, Pipes, Couplings, &c. Bath Boilers, Brass Water-Cocks and Valves in Detail.

Gas

Wrought- and Cast-Iron Pipes, Cast, Wrought, and Malleable Iron Fittings, Brass Fittings, Service and Meter Cocks, Gas Burners, Solder Furnaces, Gas Valves, Street Lamp-Posts and Lanterns, Gas-Fitters' Tools and Sundries.

Tools

Hand and Power Pipe-Cutting and Threading Machines, Pipe Stocks and Dies, Pipe Taps, Drills and Reamers, Machinists' Die-Plates, Machinists' Taps, Solid Bolt Dies, Pipe-Tongs, Adjustable Tongs, Pipe-Wrenches, Monkey-Wrenches, Gas-Fitters' Pliers, Augers, Pipe-Cutters, Pipe Vises, Chisels, Ratchets, Gas-Fitters' Pumps, Boiler-Tube Brushes and Cleaners, Boiler Tube Expanders, Hydraulic Pumps and Jacks, Patent Hand Hoisting-Machines, Oilers, Hammers, &c.

Correspondence solicited from parties requiring any Goods in the above lines.

St. Louis Iron Market.

Specially reported by HOPPER & Co., Pig Iron and Iron Ore, No. 318 Olive Street.

St. Louis, July 21, 1884.

There is no change to report, either in the condition of the market or in quotations as made last week. We quote:

HOT-BLAST CHARCOAL.	
Missouri.....	\$19 00@20 00
Southern.....	30 00@22 00
Ohio.....	24 00@25 00
COKE AND COAL.	
Missouri.....	19 00@20 00
Southern.....	18 50@19 50
Ohio.....	21 00@25 00
MILL IRONS.	
Red Short.....	17 00@17 50
Neutral.....	16 00@17 00
CAR-WHEEL AND MALLEABLE IRON.	
Missouri.....	19 00@20 00
Southern.....	25 00@28 00
Ohio.....	23 00@32 00

Iron, par.

BUSINESS CHANCES.

For the purpose of making the MANUFACTURERS' RECORD a still more valuable medium of communication between its readers North and South, we will publish, FREE OF CHARGE, short advertisements, not exceeding 40 words, from those in the South who have mills, factories, manufacturing sites or water-power for sale, capital wanted for industrial enterprises, &c., &c.; while readers in other sections who desire to engage in manufactures at the South are also invited to use these columns, without cost, either in seeking information regarding the advantages and special claims of different localities, or for asking about good openings for men and money. This department is also free for Southern manufacturers who wish to advertise for mill managers, superintendents, engineers, &c.

In corresponding with any of these advertisers please mention the Baltimore Manufacturers' Record.

SOUTHERN COTTON MILL FOR SALE.—One of the best-known and best-paying mills in the South, running 8,161 spindles, will be sold, to enable division of the property among heirs. Includes 100 acres of land, and river falls, water-power of 6,000-horse power, and can be cheaply increased to 18,000 or 20,000-horse power. Sites on the property for other factories. \$30,000 to \$40,000 worth of new machinery put in last four years. Mill now in very prosperous condition. A stratum of granite runs through the place, affording an almost inexhaustible supply, as good as any in the country for building purposes. Pure water. Climate healthful and salubrious. Maps, plans, specifications, inventory, and all desired information furnished on application. Address: BIGSBY & EDMONDS, Publishers MANUFACTURERS' RECORD, Baltimore.

FOR SALE.—A cotton mill situated on the line of the Illinois Central Railroad, near the city of Canton, Miss., in a splendid cotton region, good water supply, cheap fuel, labor abundant. The factory would be equally well adapted to spinning on a large scale, by improved methods, and cotton-seed-oil mill combined. The property consists of 28½ acres land, lying along the railroad; factory building 100 yards from the railroad, in the centre of the tract, substantially built brick, 300x50 feet; contains one English engine, 200-horse, two English lappers, shafting and pulleys. There is a double dwelling-house on the property. Bigsby & Edmonds, Baltimore, Md.

FOR SALE.—To close an estate, two cotton factories, known as "Beaver Creek and Bluff Mills," in Fayetteville, North Carolina, at public auction, Tuesday, July 31st. Products: yarns and sheetings. Capacity per day 7,000 yards sheetings and 40 bales yarn. Business prosperous. Address: Beaver Creek and Bluff Mills, Fayetteville, N. C.

COTTON MACHINERY, now running in first-class order, for sale on easy terms, or might take part payment in stock. A rare chance for a new mill, or others wishing to increase their machinery, to secure a bargain. Particulars furnished by A. B. Pitkin, Manufacturers' Agency, Providence, R. I.

FLOUR MILL FOR SALE.—Steam flouring mill; three run of stones. Machinery in first-class condition. Best run of custom of any mill in this section. Everything favorable to large and profitable business. Satisfactory reason for selling. For particulars address Harrison & Sons, Kenton, Tenn.

A PRACTICAL cotton manufacturer of New England, with an experience of 25 years as lessee and manager, wishes to negotiate for management of a Southern cotton mill. Will buy some of the stock, if satisfactory. Can furnish letters from some of the best men in the business. Address E. B., care MANUFACTURERS' RECORD.

COTTON MILL FOR SALE.—A North Carolina cotton mill, with or without machinery. Well adapted and located for cotton or woolen manufacturing, hosiery, underclothing, rice milling, &c. A great bargain is offered. Satisfactory reasons for selling. Address Bigsby & Edmonds, Baltimore.

COTTON MILL FOR SALE.—Built in 1879, in the centre of cotton region; 3,000 spindles; machinery nearly new and first class. Whole to be bought at great sacrifice, or mill will be put into stock company. Full particulars upon application to Bigsby & Edmonds, 22 Second street, Baltimore.

WANTED by a steady respectable man (married) a position as chief clerk to a cotton factory. Has had a good experience and could take a responsible position. Address, S., care MANUFACTURERS' RECORD.

WOOLEN MILL AND WATER POWER FOR SALE.—Well located in West Virginia, buildings and machinery new, latter of most improved makes. One of the finest water powers in the State. Address G. W. M., care MANUFACTURERS' RECORD, Baltimore, Md.

CAPITAL WANTED.—For manufacturing an article on which patent is now pending. A large and profitable business can be done. Address J. C. T., care MANUFACTURERS' RECORD.

GOOD WATER-POWER FOR SALE.—With a tract of pine land and farm land, extra good water-power, near James River, Va. Terms easy. Enquire of or address George Martin, Claremont, Va.

WANTED.—A situation as manager of a cotton mill by a manufacturer of large experience. Address S. L., care MANUFACTURERS' RECORD.

A MECHANICAL MAN, with small capital, can find business in connection with mills in a very healthy locality in North Carolina. Also a man to engage in the leasing and selling lands and mines. Also a Printer with a small capital, a good chance. Address W. MANUFACTURERS' RECORD.

MINING ENGINEER desires engagement as manager or superintendent. Makes assays. Late superintendent large copper mine in North Carolina. Best of references. Address Clarence M. Buel, M. E., 275 18th street, Brooklyn, N. Y.

YARN FACTORY FOR SALE.—Stocked with latest improved machinery, and having an established trade in rope, twines, &c. A magnificent opportunity for investment. Bigsby & Edmonds, Baltimore, Md.

TOLCHESTER BEACH

Superior SALT-WATER Bathing, A First-Class Hotel and Unusual Attractions.

Steamer LOUISE, Licensed for 2,000 People.

NO SCHOOLS ON SATURDAYS.

Leaves Pier 16, at 8.15 A. M. and 2.30 P. M., Sundays 9 A. M. and 2.30 P. M. Leaves Tolchester at 7.30 P. M.; arrive in the city at 8.45 P. M. Excursion Tickets 50 cts. at the boat. Children half fare; under six, no charge.

Special Rates to Churches and Societies. Apply at Office, PIER 16 LIGHT STREET.

—ESTABLISHED 1865.—

Steam Boilers

JOHN T. COLEMAN & SONS,

Steam Boiler Works,

Cor. Holliday and Pleasant Sts., Baltimore.

Manufacturers of all kinds of Steam and Bath Boilers, Smoke Stacks, Water Tanks, Lard Kettles, &c. Particular attention given to repairs.

Vulcan Works

BALTIMORE, MD.

The undersigned is prepared to contract for the manufacture and erection of BOILERS AND ENGINES for Steamers, Manufactories, Mines, Water Works, Blowing Engines for Furnaces, &c., &c. He will also furnish designs and contract for the building and erection of Iron Bridges, Build Girders, Beams, &c., for Railways or Buildings. Castings of all descriptions. Information and estimates furnished upon application as above.

H. R. HAZLEHURST.

THE SOMBART Gas Engine

PATENT

Started Instantly. No Fire to Build. No Boiler to Watch. No Engineer Required. No Coal nor Ashes. No Water Needed.

NO DANGER OF EXPLOSION! Four Sizes, ½, ¾, 1, and 1½-horse-power, (Actual.)

When stopped all expense ceases. The most convenient and cheapest Motor for small power ever made. Just the thing for Printing Offices, Laundries, Jewelers, Saddlers, Coffee Mills, Small Shops, etc.

Sombart Gas Engine Co., HARTFORD, CONN.

For sale by Jackson & Tyler, 16 S. Howard St., Baltimore.



SHENANDOAH * VALLEY * ROUTE.

Traversing the most Picturesque Section of America, replete with scenes of Historic Interest and NATURAL BEAUTY, an presenting to the eye of the Traveler and EVER-CHANGING PANORAMA.

This Popular Trunk Line, now before the public scarcely two years, has in that brief space firmly established itself with

TOURISTS and TRAVELERS

generally, as the MOST DESIRABLE ROUTE BETWEEN THE NORTH and SOUTH.

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DOUBLE DAILY TRAINS.

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Between New York and New Orleans via Atlanta, Ga., and Montgomery, Ala., via Rome, Ga., and Calera, Ala., via Chattanooga, Tenn., and Birmingham, Ala., via Grand Junction and Jackson, Miss., via Caverns of Luray and Natural Bridge, Va., and affording unsurpassed facilities for reaching all VIRGINIA SPRING RESORTS. Double daily Pullman Palace Car Service without change between New York, Philadelphia, Luray and Natural Bridge.

Stop Over at Luray allowed on all Through Tickets.

A. POPE, Gen. Pass. and Ft. Agt., ROANOKE, VA.

REMOVAL!

Monumental Type Foundry!

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Type Founders and Electrotypers, No. 31 German Street, near Calvert,

WE take pleasure in calling the attention of our patrons, Printers, Newspaper Publishers, and the public in general to the removal of our establishment to the above desirable location. Our business has outgrown our present quarters, and we have fitted up three entire floors of this large and commodious building in the most complete manner for the execution of our work, having added to our already extensive facilities all the latest and most approved machinery that can be used in the manufacture of TYPE, ELECTROTYPING, BRASS RULE, and the GENERAL PRINTERS' SUPPLY business, making it now by far the best equipped establishment of this kind in the city. We manufacture a line of beautiful Book and Newspaper Type, and use a superior metal in the manufacture of same, which we will furnish at very low prices, and guarantee satisfaction.

JOHN G. MENGEL & CO., 31 GERMAN ST.

HOTEL WANTED.

Fincastle, a mountain town of southwest Virginia, only 5 miles from railroad, noted for its splendid climate and great healthfulness, with scenery unsurpassed in the State, offers a splendid opening for a hotel, either large or small.—Accommodations entirely inadequate to the demand.

A hundred yards or so from the town is a mineral spring, the waters of which possess great medicinal virtues, especially for liver and stomach troubles,—dyspepsia, &c. In fact this water has never been known to fail, even in the most aggravated cases of dyspepsia.

An unusually favorable opportunity is offered or building a hotel. Address

GEO. H. SWANN,

Secy. Fincastle Mineral Water Co.

"Nothing is denied to well directed Diligence."

MYERS SANITARY DEPOT.

Office and Salesroom—92 Beckman Street,

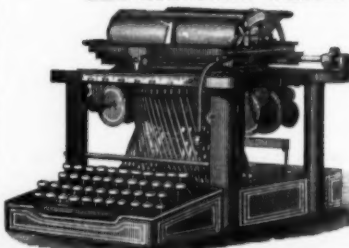
MYERS ALL CHINA WATER CLOSETS of various Sizes and Kinds. MOULES DRY EARTH CLOSETS.

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It much more than takes the place of the pen, as it does the work of two or three penmen, and much more neatly and legibly. The business man will appreciate this saving of valuable time. Dictate your correspondence, etc., to a Type-Writer operator and have your time and strength for other matters. (Perfect press copies obtained in same way as of pen writing.)

Again the Type-Writer is well-nigh indispensable to overworked professional men. It is a complete relief from the strain of pen-writing. Lawyers have their papers written with the Type-Writer. Many copies can be made at one time, (absolute duplicates) thus multiplying speed. Clergymen write their sermons with the Type-Writer, and hence can read them in a dim light. Authors, journalists and others compose directly on the machine. It facilitates composition, as the manipulation becomes purely mechanical, and owing to its greater speed the mind does not lose its freshest and best thoughts, as when waiting for the slow pen to catch up. In use throughout the world. Perfect satisfaction guaranteed. Send for illustrated pamphlet, with testimonials.

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FOR ROAD AND TRICYCLES USE

THE POPE MFG. CO.

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"If I could not get another bicycle I would give mine for its weight in solid gold. For fifteen years I lost from three to eight days every month with ordinary road bikes. Since I have been riding the bicycle I have lost only two days from this time, and I haven't spent a dollar for a doctor." Rev. GEO. F. FENTON.

STRONG, GRACEFUL—EVERY PART INTERCHANGEABLE.

FINEST MATERIALS SKILLFUL WORKMANSHIP

HOISTING ENGINES

Of any Power, Double and Single, with



Improved Patent Friction Drums, Especially adapted for Bridge Building, Dock Building, Pile Driving, Coal Hoisting, Quarries, Mines, etc.

STAMP MILLS OF ANY SIZE FOR MINES.

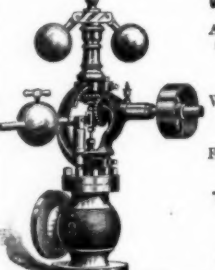
J. S. MUNDY

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THE GARDNER GOVERNOR.

Over 30,000 in Use



Adapted to every style of stationary and portable steam engines.

Warranted to give satisfaction, or no sale.

For Circulars and Prices address

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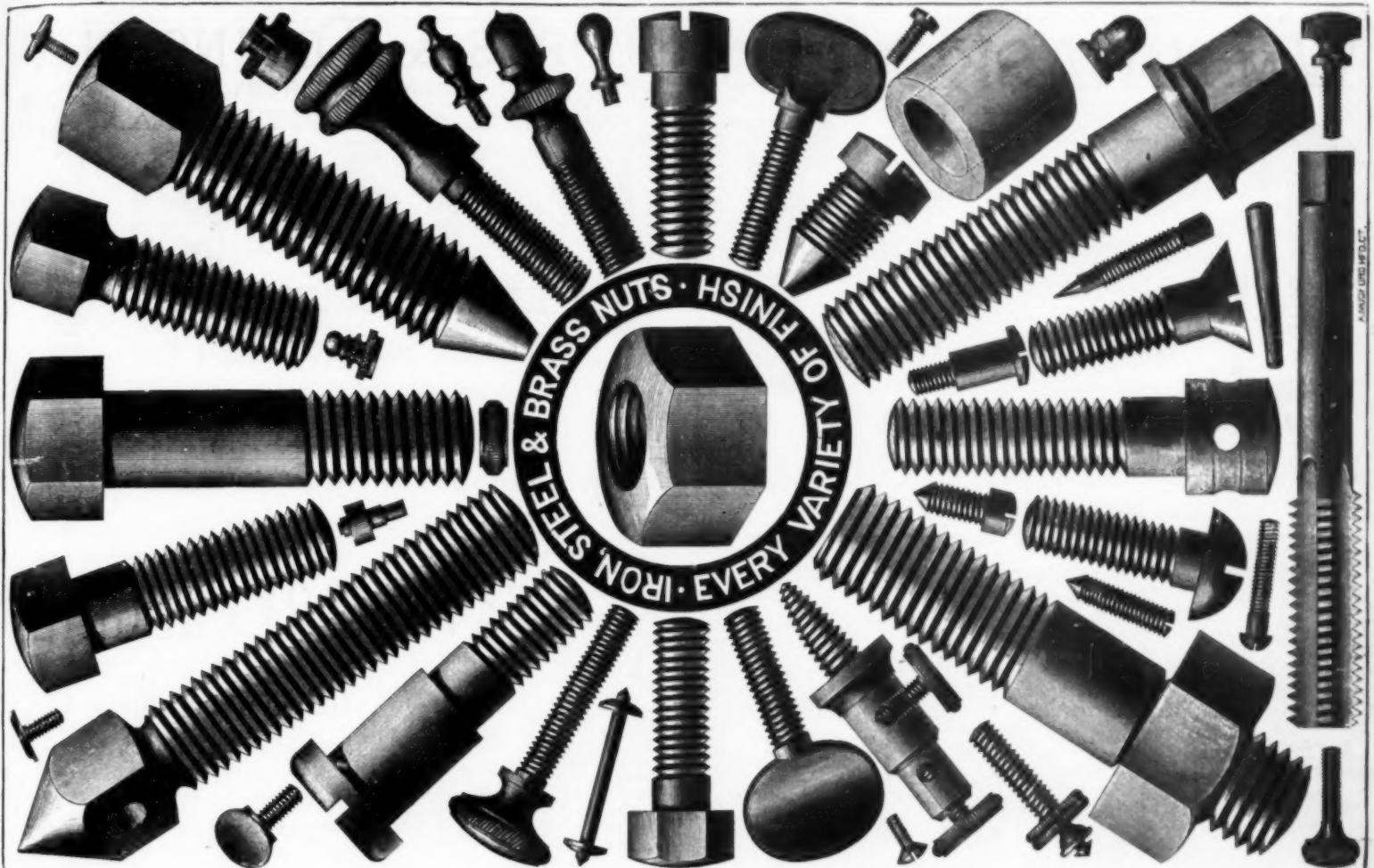
Quincy, Ill.

THE HOLLAND LUBRICATOR, VISIBLE DROP.

Is guaranteed to be a perfect lubricant against the cutting of Valve seats, Cylinder and Governor Valves of the engine. It will pay for itself in six months, in the saving of oil, coal, and packing. It will insure more speed in the revolutions of the engine, say from one to two strokes per minute, thus increasing the power of the engine. Mfg'd by Holland & Thompson, 211 River St., Troy, N. Y.

JOSHUA REGISTER & SONS, BALTIMORE,

Agents for the South.



The Hartford Machine Screw Company, Hartford, Conn.

—MANUFACTURERS OF—

Hexagon, Square, Round or Fillister Head Cap Screws, Oval Point and Cupped Point Set Screws, Collar Screws, Hanger Screws, Stud Bolts, Studs and Rolls.

Sewing Machine Screws, Gun Screws, Clock Screws and Trimmings, Piano Screws and Trimmings, Shear, Thumb and Watch Screws, Metal Dowel Pins for Pattern Work, Taper and Straight Pins of all Sizes. Taps and Reamers to match. Telegraph, Electrical and Optical Work. All kinds of Fancy Turned Metal Work. Many of the above varieties we carry in stock.

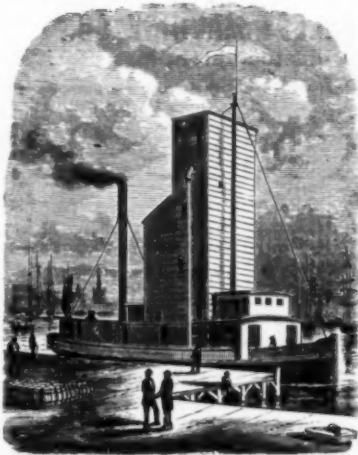
Small Screw Tools a Specialty.

Cheap Rotary Pumps for Supplying Machine Tools with Oil, Soda Water, &c.

The attention of Model Makers, Machine Builders and Buyers of Machine Screws is called to the fact that we carry in stock a great variety of Milled Machine Screws, including all Standard Sizes, with Taps to match.

By Referring to our Stock, much Time and Expense may be Saved.

PRICES Reasonable. Send for Lists.



F. H. FOLSOM,

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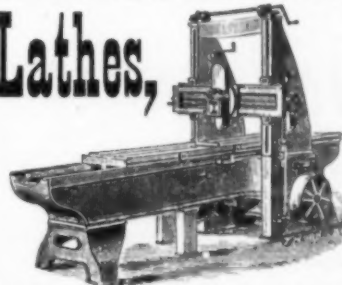
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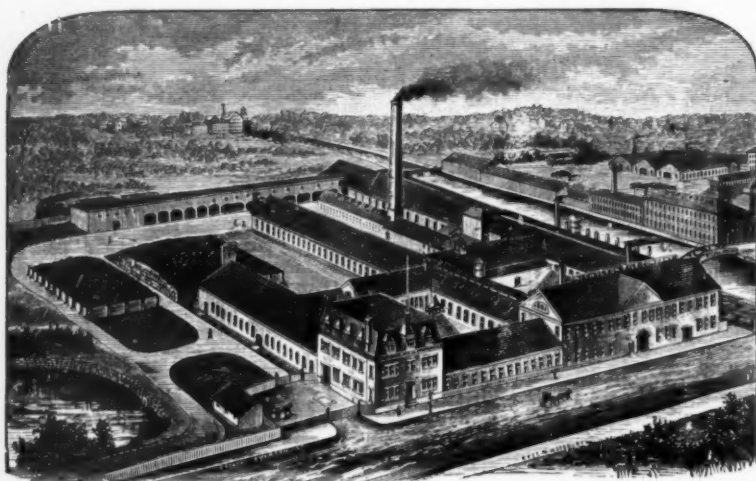
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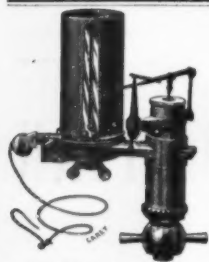
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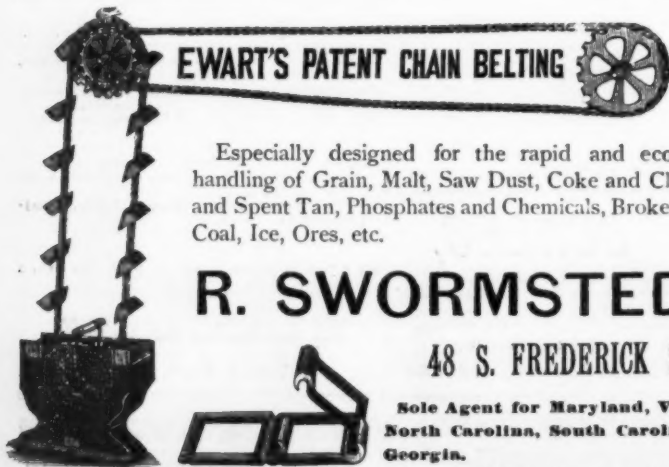
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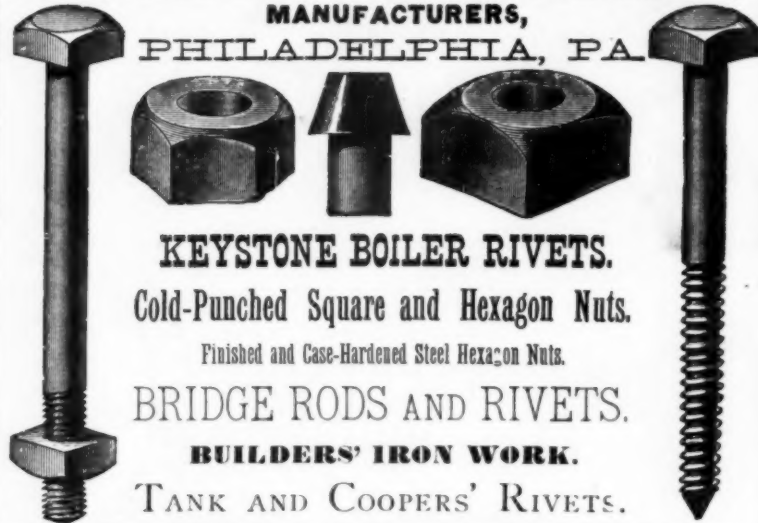
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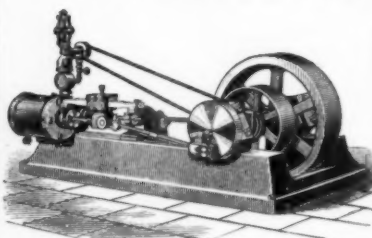
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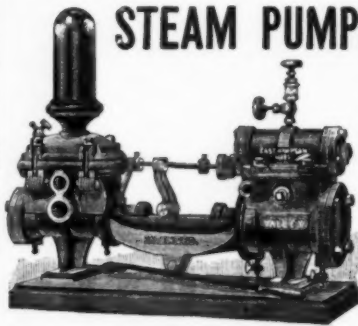
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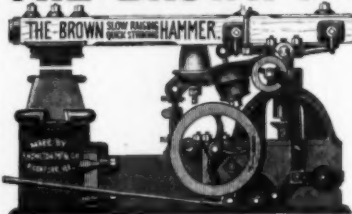
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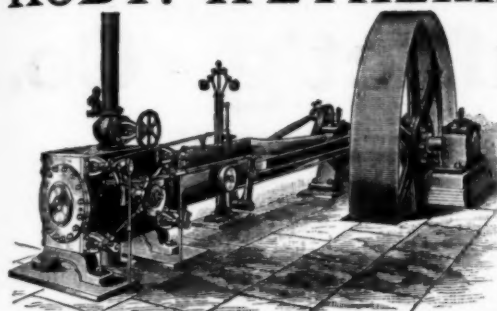
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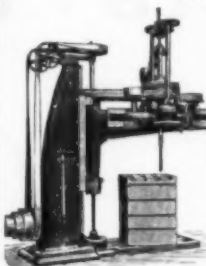
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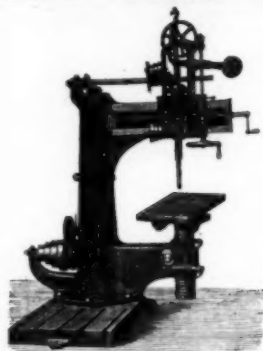
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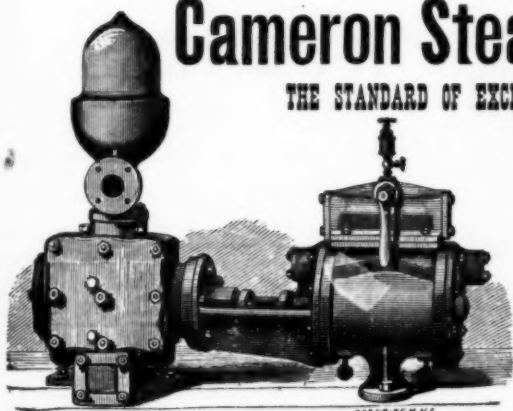
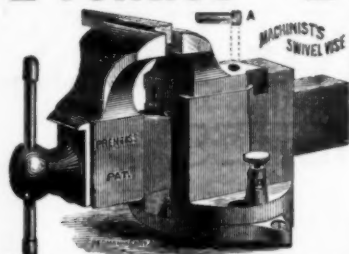
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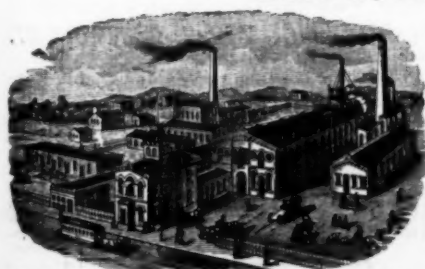
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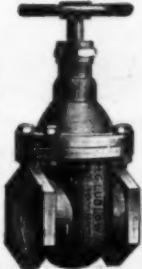
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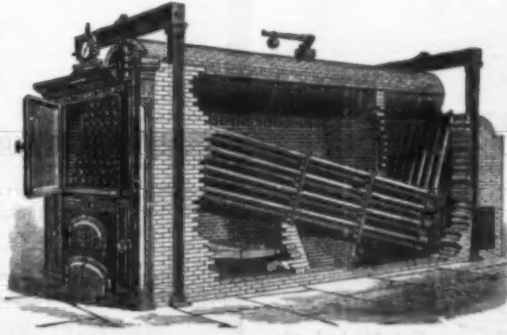
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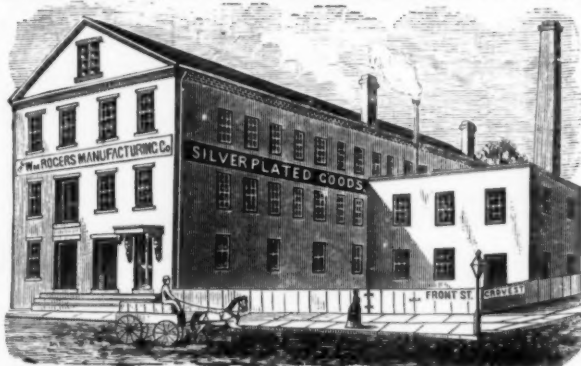
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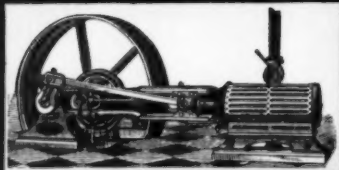
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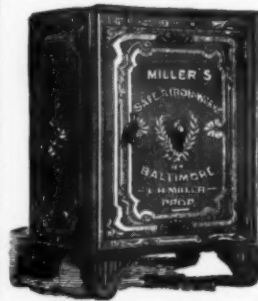


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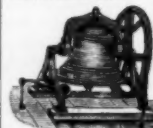
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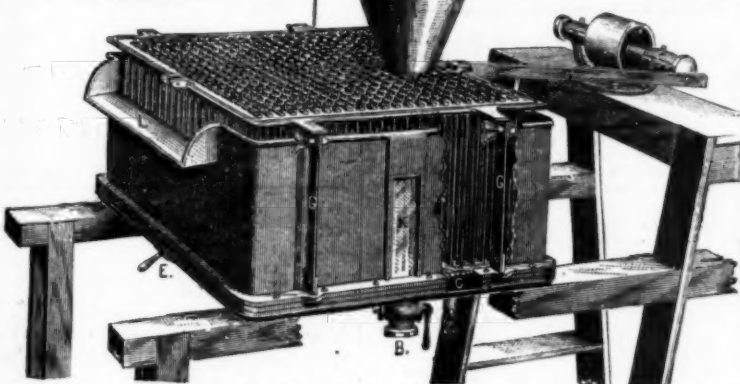
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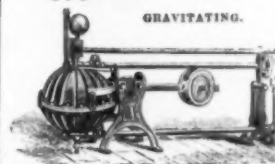
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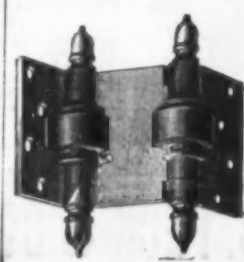
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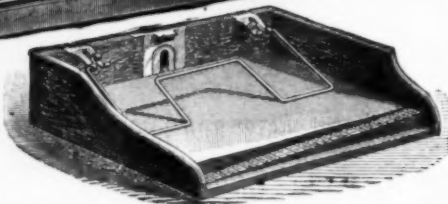


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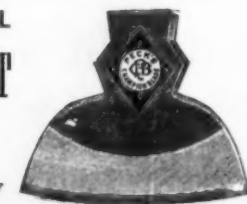
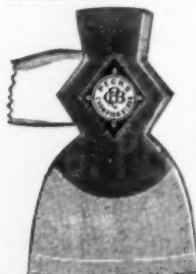


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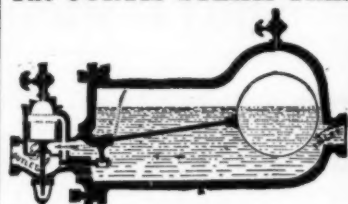
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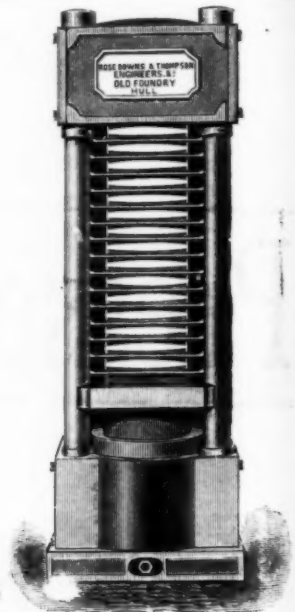
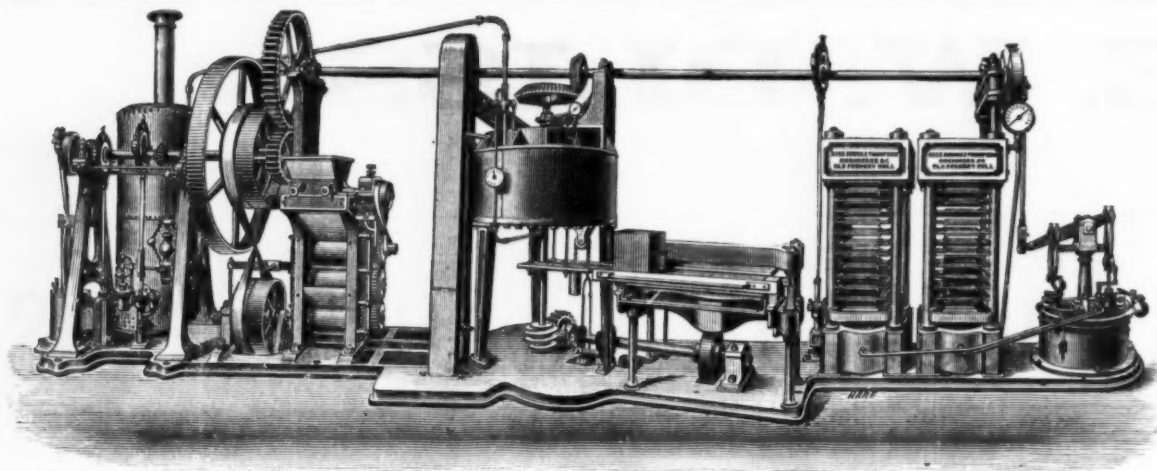
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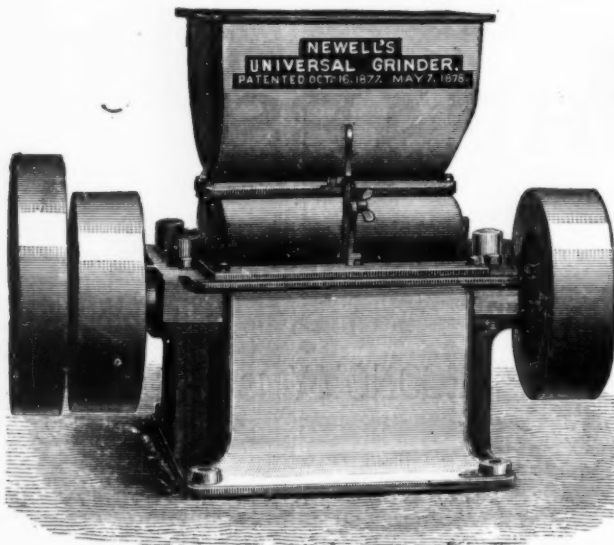


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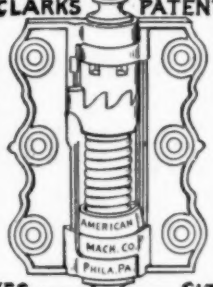
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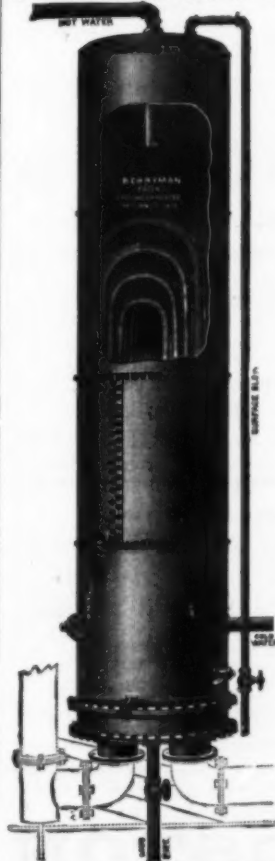
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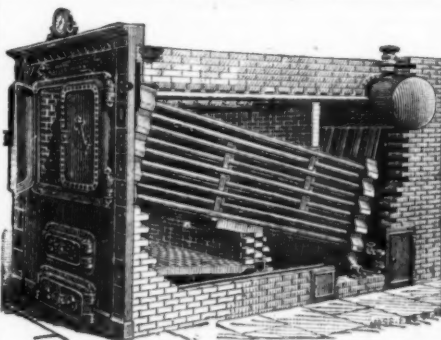
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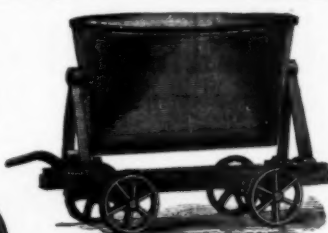
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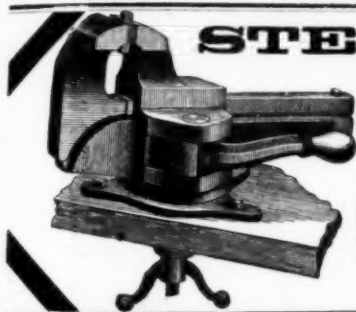
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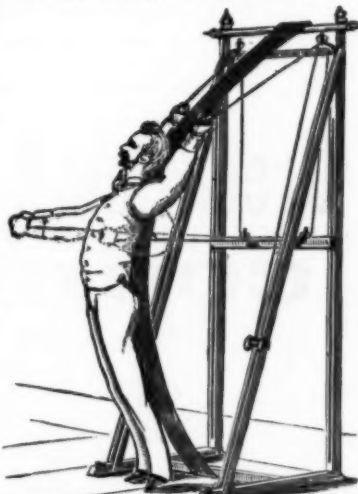


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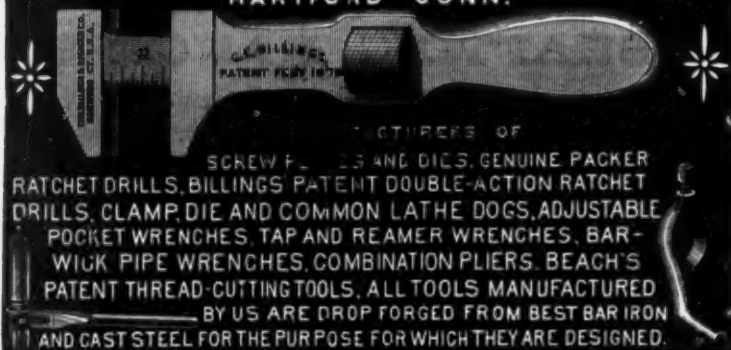
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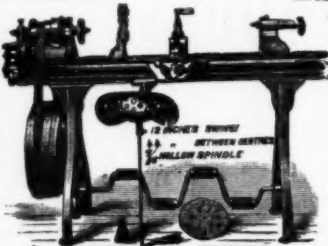
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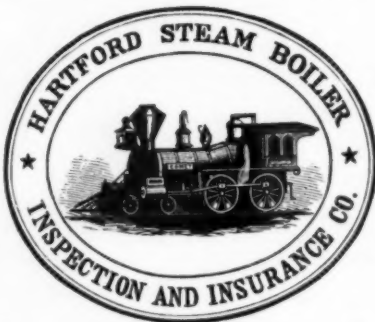
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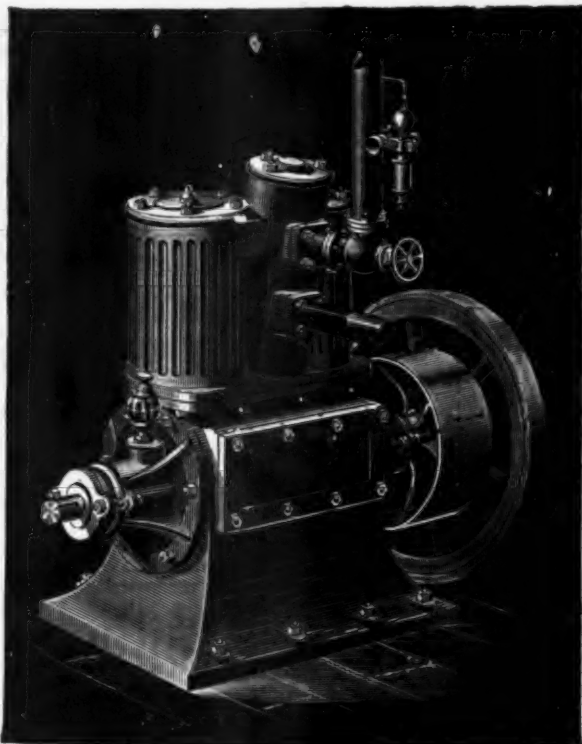
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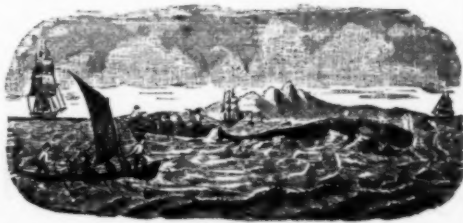
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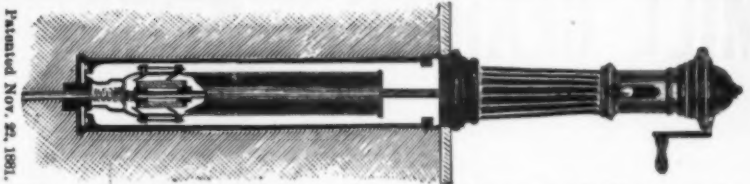
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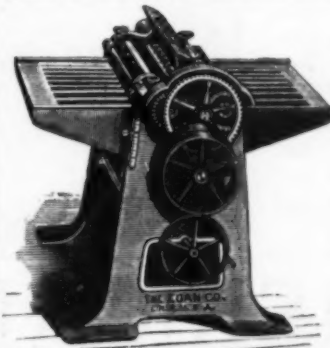
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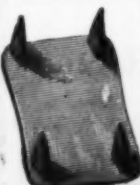
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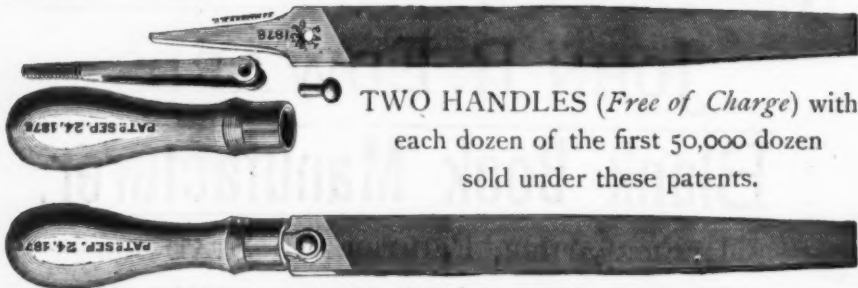


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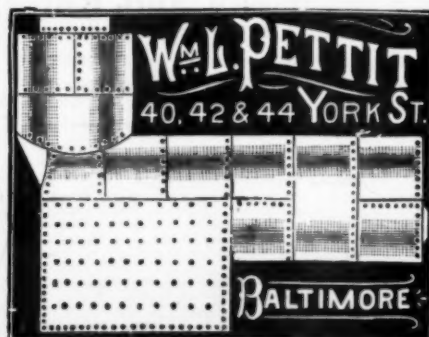
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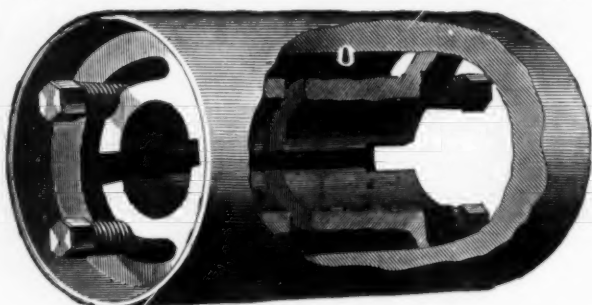
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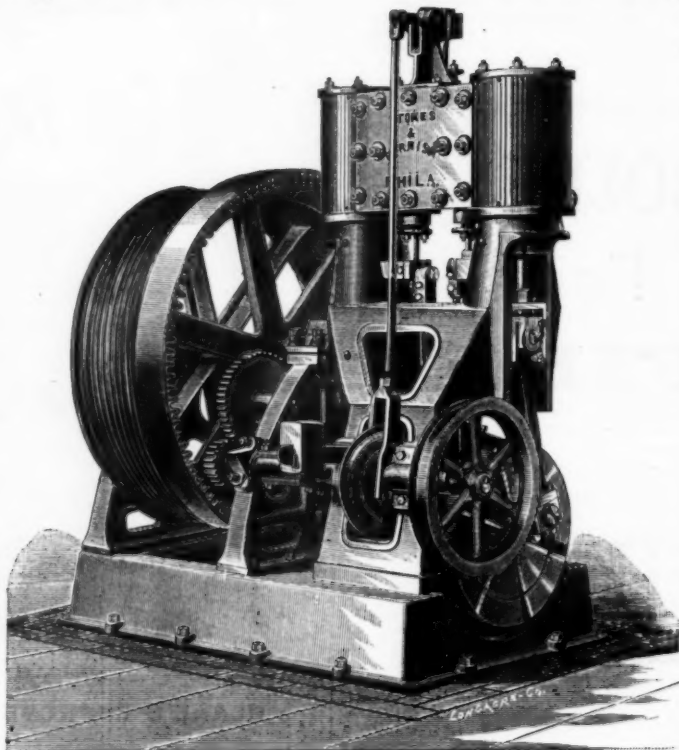
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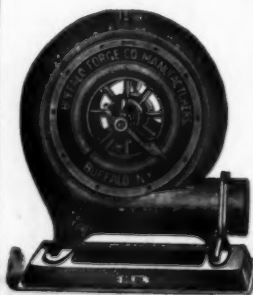
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